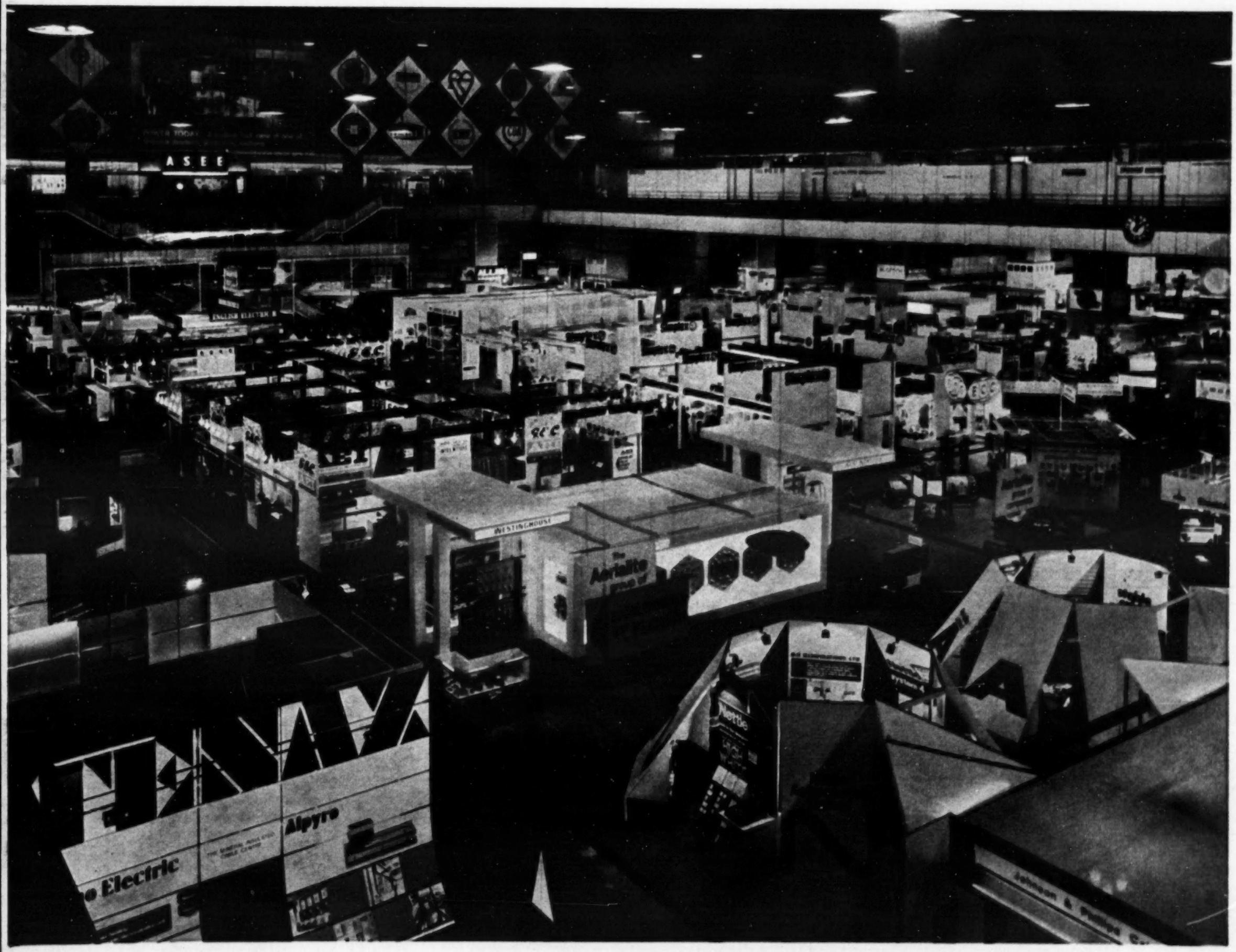
# Board of Trade Journal

Volume 198, No. 3809 Published by Her Majesty's Stationery Office 18 March 1970

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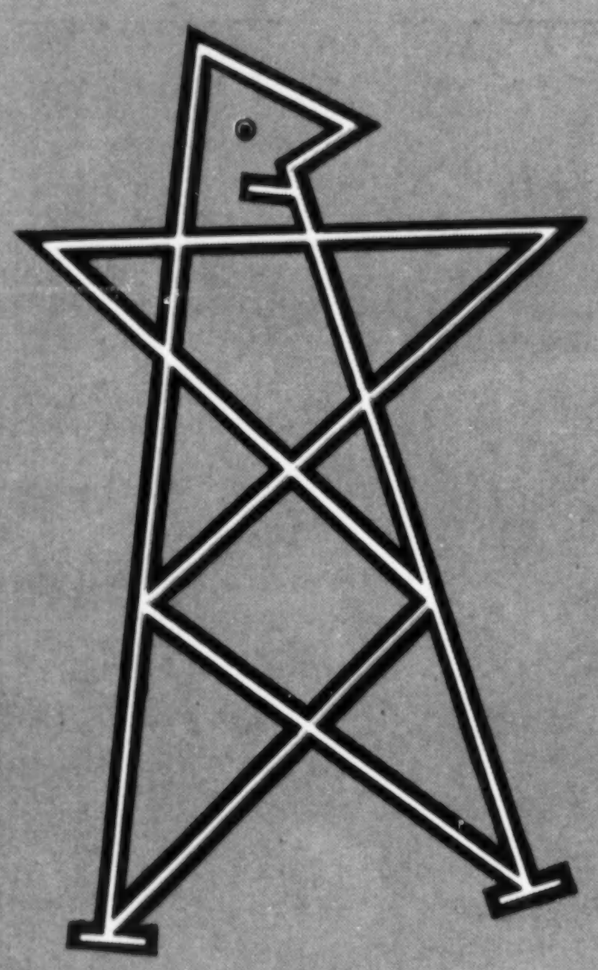

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VOLUME 198. NO. 3809. PAGES 713-796. MARCH 18, 1970.
PRICE 2*s* 0*d* (10p). NET SUBSCRIPTION INCLUDING POSTAGE £6 18*s*. 6*d*.

*Editorial Address:*
**Board of Trade Journal, Room 437, Board of Trade, 1 Victoria Street, London, S.W.1. Tel. 01-222 7877.**



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## *Front cover photograph*

The scene on the ground floor at the 1968 Electrical Engineers' Exhibition. The Fifteenth International Electrical Engineers' (ASEE) Exhibition – 'Electrex '70' – will be opened by Mr. Harold Lever, Paymaster General, at Earls Court, London, on April 8. A special supplement dealing with this year's exhibition is published in this issue.

## LATE ANNOUNCEMENTS

### *Exports to Iceland—drawback*

EXPORTERS TO Iceland are reminded that when consigning goods to Iceland under EFTA declarations, compliance with the EFTA 'no-drawback' rules is essential. The EFTA no-drawback rules generally debar goods of EFTA origin from receiving EFTA tariff treatment if they have been the subject of a claim for drawback or equvalent relief on exportation from the EFTA country in which they underwent their last process of production. Exporters using EFTA declarations must therefore satisfy themselves that no-drawback or equivalent relief is claimed in respect of any imported non-EFTA materials used in the manufacture of the exported product. This applies to all goods consigned to Iceland under EFTA declaration including those exported to Iceland before March 1, 1970 and entered for Customs clearance on or after that date.

In accordance with the agreed timetable for the reduction of Iceland's *protective* duties in imported EFTA industrial goods, Iceland has made a 30 per cent reduction of the full rate with effect from March 1, 1970. When exporting goods subject to the reduced rate of duty, exporters will need to consider whether it is in their interest to forego 'drawback' in respect of any imported non-EFTA materials used in the production of their products so that they may be eligible for the EFTA rate of duty on entry into Iceland or, alternatively, claiming drawback on such non-EFTA imported materials thus making their exported product liable to the full rate of duty.

The decision will, of course, depend upon the amount of United Kingdom duty levied on the imported non-EFTA material and the difference in duty payable on the goods at the full and EFTA rates on entry into Iceland. Tariff Section, Export Services Branch, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757. Ext. 459 or 461) are in a position to help exporters reach a decision by providing details of Iceland's current general import rates and any applicable EFTA rates.

Inquiries about this notice apart from duty rates should be directed to the Commercial Relations and Exports Department, Board of Trade, Room 376, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2301 or 2302).

### *Iceland increases sales tax*

WITH EFFECT from March 1, 1970, the sales tax charged on all goods retailed in Iceland will be 11.2 per cent of the retail price. In cases where the importer is also the end user and there are no further transactions within Iceland this tax is collected on import at the rate of 12.1 per cent.

Inquiries about this notice should be made to Export Services Branch, Board of Trade, Room E53, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 459 or 461).

## *Index to Statistics published regularly in the Board of Trade Journal*

A = annually; M = monthly; Q = quarterly; 6-M = every six months.

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| **Credit:** | |
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**Board of Trade Departments, etc.**

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| Board of Trade addresses | 18 Feb. 1970 |
| British Commercial representatives overseas | 14 Jan. 1970 |
| Customs notices of interest to exporters | 4 Mar. 1970 |
| Directory of Board of Trade Departments and their work | 29 Mar. 1968 |
| ECGD local offices | 25 Feb. 1970 |
| Half-yearly index – July-Dec. 1969 | 18 Feb. 1970 |
| Official Receiver's offices | 21 June 1969 |
| Programme of trade promotions | 11 Mar. 1970 |

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Editorial Communications should be addressed to the Editor, *Board of Trade Journal*, Room 437, Board of Trade, 1 Victoria Street, London, S.W.1. (Tel. 01-222 7877, Ext. 2654).

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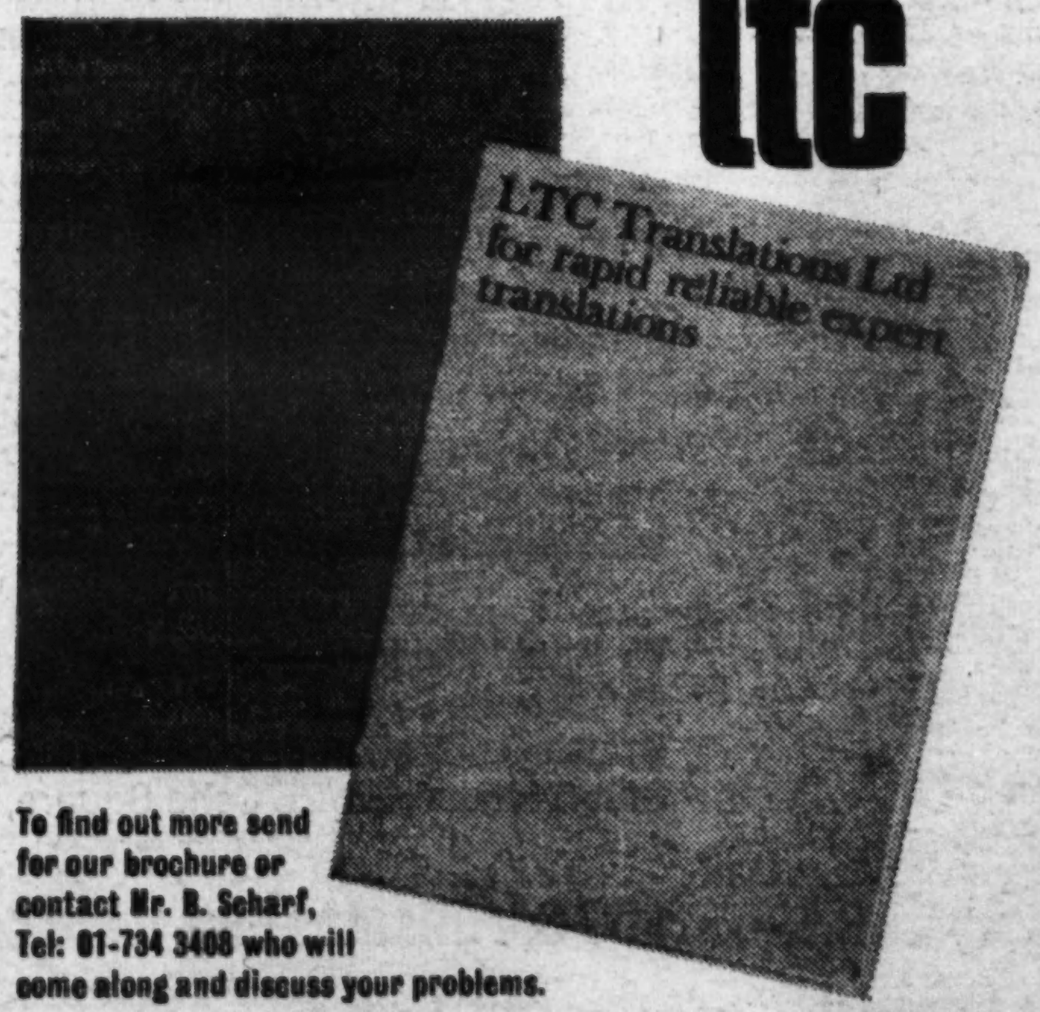


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# The market for British goods in Bavaria

by Nicol Morton, Consul (Commercial), British Consulate-General, Munich

BAVARIA IS THE LARGEST *Land* in the Federal Republic of Germany covering an area of 70,550 square kilometres. It has a population of 10.3 million (about twice that of Scotland). With a gross domestic product of DM 83,416 milliard (over four times the 1950 GDP); a consistently higher growth rate over the past 10 years than the average for the Federal Republic; and industry heavily weighted on the side of modern technology and so unhampered by the structural problems facing some of the traditional heavy industries, future expansion of the economy looks particularly bright. The business community is very outward looking. Lederhosen, brass bands and beer cellars play as small a part in modern Bavaria as beefeaters and morris dancers do in England.

The gross product per head of the population in 1968 was DM 8,069. This is slightly less than the Federal average of DM 8,790 mainly because of the still very substantial numbers of low paid agricultural workers. But the economy is being speedily transformed from a predominantly agricultural one to a highly developed industrial one, with the resultant steep rise in spending power. In the last 15 years 3,500 new industrial concerns have been set up in Bavaria, and of these 2,500 have been placed in the structurally weak areas along the zonal and Czech borders. Over the same period an extra 395,000 jobs have been created, of which over 200,000 were in the rural areas. Energetic measures continue to be taken not merely to encourage economic development throughout the *Land* but more especially to strengthen the structure of industry in these underdeveloped and zonal areas and to improve the communications to and through them. An agreement recently concluded betwen the Bavarian State and the Federal Government aims at providing an additional 100,000 new jobs over the next five years in development and border areas in Upper Franconia and Eastern Bavaria. Detailed forward planning is also under way to cope with the pending substantial move from agriculture to industry. It is expected in this context that by 1980 over 80,000 workers will seek employment away from agriculture, and that between now and 1990 the agricultural labour force in Bavaria will have been run down by well over 200,000, thus providing a continuous flow of much needed labour into more productive and better paid industries.

*His Excellency the British Ambassador in Bonn visiting the stand of Venner Electronics Ltd. of New Malden during the last International Exhibition of Electronic Components and Related Measuring and Production Equipment held in Munich. There was a large and highly successful Board of Trade sponsored joint participation at this exhibition which will be repeated at the next 'Electronica' in November* 1970.

## Munich still dominates the economy

Despite governmental help in attracting new industries to these areas, the capital, Munich, still dominates the economy of Bavaria and produces 36.2 per cent of its gross product. It is the third largest and the fastest growing industrial city in Germany, and has an annual industrial turnover of DM 10,200 million. As well as tackling a large scale housing development programme, the city of Munich is also in the throes of a building fever with new roads and an underground system in preparation for the 1972 Olympic Games. It is also fast becoming one of the most important international fair centres in the world.

In 1968 unemployment in Bavaria equalled the Federal average of 0.8 per cent; and with 15,000 unemployed against 150,000 unfilled vacancies the pressure on the labour market can scarcely be contained, despite the presence of over 200,000 foreign workers, 80,000 of these living in Munich alone. Even in the developing areas along the Czech and eastern zone borders unemployment has remained at a socially acceptable level.

From a working population of about five million a total of 1.3 million people are employed in industry. There is a high proportion of female labour (about 37 per cent). In terms of numbers of workers the major industries are the electrical, machinery, textiles, chemicals, road vehicles and clothing industries. About 50 per cent of all employees are working in establishments employing more than 500 workers. Small industries however, are still very important in some sections of the handwork, woodwork, stone and earthenware industries,

The pattern of the Bavarian economy has changed markedly in the past two or three decades. Agriculture, which before 1939 was a dominant factor in the economy, by 1968 accounted for only 5.3 per cent of the gross product against 51.2 per cent accounted for by the manufacturing industries, 16.8 per cent by trade and distribution and 26.7 per cent by services (largely accounted for by the lucrative hotel and tourist industries).

The electrical/electronic industry has replaced the textile industry as the most important industrial factor. It employs 200,000 people in 818 concerns and its 1969 turnover is estimated at DM 10,000 million, i.e. over one-fifth of the Federal turnover in this branch of industry. The industry is largely concentrated in the Nürnberg-Fürth-Erlangen and in the Munich area. About 30 per cent of its production is exported. Siemens, whose world-wide turnover in 1968 exceeded DM 10,000 million, is the most important electrical firm (and the largest employer in Bavaria) and one of the largest in the world with a total labour force of almost a quarter of a million. There are however many other internationally known firms in this area.

## Capital goods industry leads

In recent years the capital goods industry has overtaken the consumer goods industry in importance. This is mainly due to the growth or the machinery industry which, with an annual turnover in excess of DM 7,000 million is now the second most important branch of industry in Bavaria. Its labour force numbers 170,000 employed in 810 enterprises; it accounts for 14.4 per cent of the total Federal turnover in this branch. 50 per cent of production

(*Continued on page* 719)

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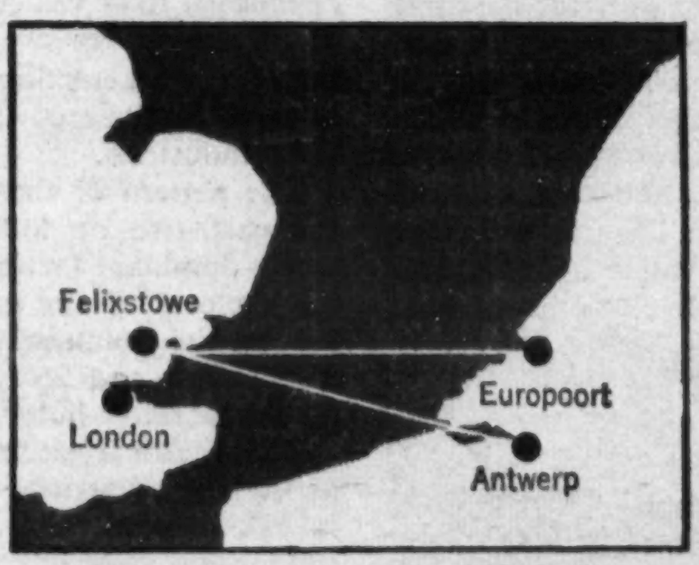


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BRITISH GOODS IN BAVARIA, *continued*

is exported. The textile industry, with a turnover of DM 400 million and employing 102,000 people, and the clothing industry (turnover DM 3,300 million with 101,000 employees) are both of considerable although relatively diminishing importance in the economy of Bavaria. The clothing industry is very important to Munich where are to be found some of the largest ladies' underwear manufacturers and ladies' clothing manufacturers in Germany. While the textile industry has suffered from French competition as a result of Germany's membership of the Common Market, the clothing industry in Bavaria has benefited from the shift of the centre of the German fashion industry from Berlin to Munich. The chemical industry is also important to the economy of Bavaria; its current annual turnover is DM 4,400 million. It employs 57,000 people in 900 concerns. Other industries which are to a certain extent concentrated in Bavaria are toys and Christmas decorations (Nürnberg), ceramics and china-ware (Selb and Hof), ball bearings (Schweinfurt), cheese (Allgäu), and aircraft (Munich).

**Munich is centre of avionics industry**

A series of mergers have taken place over the past year or two which have resulted in Munich becoming the centre of the German avionics industry. The leading company in the area has emerged as the dominant German aircraft company; and, despite its diversity of interest, is setting great store on the successful outcome of the present undertaking with British Aircraft Corporation and Fiat to develop a multi-role military combat aircraft. These three companies have formed a joint company called Panavia which is based in Munich for the purpose of developing this MRCA aircraft which has been described as 'The most important defence procurement project in Europe today'. Associated with this project joint companies have also been formed to deal with the aircraft engines (in which Rolls-Royce have a major interest), and the electronic and system side of the project is being looked after by a company called Avionica in which British interests have a 37.5 per cent share.

The Franco-German European airbus development, in which the British company Hawker Siddeley are participating, is also centred in Munich. This scheme has brought in a steady flow of British aircraft designers and draughtsmen to the Munich area. One version of the aircraft may be offered with Rolls-Royce engines. These two major projects – and innumerable ones of lesser importance – have meant a considerable marrying of British and German aviation interest, which will greatly benefit both countries in economic and technological terms.

With very little in the way of natural energy resources, and far removed from ports, refineries and coal fields, the industrial growth in Bavaria was for some years hampered by having to pay more for its energy than other *Länder*. However, thanks to the initiative and detailed forward planning of the Bavarian Government this situation has been rectified by, amongst other things, the establishment of an important oil refinery centre in Ingolstadt to which crude oil is delivered by pipelines from the Mediterranean.

The use of gas is also expanding rapidly. Total gas consumption in 1968 was up by almost 33 per cent on 1967, largely because of the extension of natural gas supplies. The estimated reserves of natural gas so far found in Bavaria have been given at 7,800 million cubic metres. This, however, is no more than a few months' supply, so the bulk of natural gas must be imported. An agreement was signed in February which will result in a regular supply of Soviet gas being provided by direct pipeline from Siberia. These new supplies will become available in 1973 when the cost of gas will become much more favourable than present-day prices. The gas depot will be centred in Northern Bavaria at Marktredwitz.

Current electricity generating capacity is 5,500 MW, one-third of which is provided by hydro-electrical power stations and the remaining two-thirds by conventional power stations. The annual consumption growth is about 7 per cent which means that demand will have doubled between now and 1980. To meet this an expansion of generating capacity by an additional 5,000 MW is planned. This will be provided either by conventional thermal power stations or by atomic power stations with outputs of up to 600 MW. Four nuclear power stations have already been erected. Industrial development in the future will not, therefore, be hampered by insufficient energy.

The existing traffic network in Bavaria is modern and efficient. It has 21,000 kilometres of autobahn and main state roads. These, however, must be expanded further to meet future demands and the special requirements of the development areas. A plan for the future of all traffic communications based on the estimated requirements in 1985 is currently being worked out. The first and most important part of this work was agreed by the Bavarian Government in March 1969; it envisaged the construction of a further 2,130 kilometres of autobahn by 1985 at a cost of DM 12,000 million. The emphasis on construction is to be divided between easing the traffic situation around the densely populated areas and improving communications with the remoter developing areas. The plan envisages that no pockets of population will be further than 20 kilometres away from an autobahn or main state road.

Bavaria also rightly boasts of having the most intensive railway system in the Federal Republic with a quarter of the length of the Federal railway system lying within its state boundary.

There are international airports in Munich and Nürnberg. Munich airport has reached the limit of its development capabilities, but plans are well advanced for the construction of a new international airport for the city by the latter half of the 1970s.

Nor have the waterways been neglected. From the days of Charlemagne visionaries have foreseen the time when ships could sail through Europe from the North to the Black Sea. But it was not until the Rhein-Main-Donau Canal Company was formed in 1929 (mainly with Federal and State government finance) that this vision began to be realized. The canalization of the River Main between Aschaffenburg and Bamberg was completed in 1962. The next stage is well under way; this includes building a canal to join the River Main at Bamberg to the River Danube at Ragensburg. This work has almost reached Erlangen; it should turn Nürnberg into a harbour town by 1972. The final link up with the Danube is scheduled for 1981 by which time river traffic will be able to flow unimpeded from Rotterdam to the Black Sea.

In this connection experience has shown that canal developmnt has brought with it industrial settlement along its banks. One hundred and eighty-three industrial undertakings were started following the canalization of the Main between Aschaffenburg and Bamberg. This process is confidently expected to continue as the canal development work progresses through Northern Bavaria.

It is hoped that this general picture will have shown that Bavaria is a *Land* with a very bright future and with a greater capacity for expansion than most other *Länder* in the Federal Republic. Its economy is sound; its development programmes are well laid; investment plans are progressive and there is a good network of local banks well able to handle financial matters. With the increased shift of importance from agriculture to industry and the switch of agricultural labourers to industry, development seems bound to continue apace for a considerable time; and with development will come a higher standard of living. Bavaria will, therefore, remain a very attractive market both for capital and consumer goods' suppliers.

**Visits from British businessmen welcomed**

In the past there has been a marked tendency for British businessmen to ignore Bavaria and to think it can be covered by agents from Hamburg and Düsseldorf. Commercial Officers here visiting Bavarian firms are frequently met by complaints of the lack of attention to this part of Germany by British industry. It cannot be too strongly emphasised that Bavaria is – and Bavarians consider themselves to be – different both in traditions and tastes. It is, therefore, strongly recommended that more time and attention should be paid by British exporters to this highly advanced technological region with its proud record of speedy industrial development and its confidence in its own future. The Bavarians, although basically a conservative race strongly retaining many of their historical characteristics, have also accepted innovations and are willing to examine all new worthwhile proposals. Visits from

(*Continued at foot of next page*)

## *'Good export prospects in Rumania'*

**—The President**

PROSPECTS FOR BRITISH exports to Rumania are good in a number of fields, particularly in irrigation, said Mr. Roy Mason, President of the Board of Trade, in Rumania on March 10, after trade talks with Mr. Cornel Burtica, Rumanian Minister for Foreign Trade. One contract worth over £22 million has been signed and several others of a similar size are being negotiated, one or two of which are expected to be signed in the next few months.

The President, who was on a three-day official visit to Rumania for trade talks, also toured the Britten-Norman assembly plant and was told that Rumania wants to build a further 85 Britten-Norman Islander planes. The plant, in Bucharest, has already built 10 Islanders and is prepared to produce three planes a month. The Rumanians have contracted to build 215 Islanders by 1973 but now wish to extend the contract to 300 planes by 1974.

Mr. Mason talked to Rumanian and British staff who told him that the 125 workers at the factory were elated by the Islander's recent victory in the London to Sydney Air Race. They were even more pleased by a personal telegram from Mr. John Britten congratulating them on the quality of workmanship of the Islander on display at the Leipzig Trade Fair. The Britten-Norman plant was set up as part of an agreement involving the purchase by Tarom, the Rumanian airline, of six BAC-111's in 1968.

Mr. Ion Avram, Rumanian Minister of Machine Building, told Mr. Mason that the Rumanian Government was interested in the projected BAC-311, and would like to co-operate on a joint venture with the British Aircraft Corporation, building parts of the 311 locally and using considerable Rumanian content. The President told Mr. Avram that the British Government expected to make a final decision on the BAC-311 project in the next two or three months.

A 15-year collaboration agreement between the British Aircraft Corporation and the Rumanian authorities is also currently under discussion. It covers research, design and production. Rumania is anxious to build up her aircraft industry, which lapsed after the war, and is looking to Britain as a partner, particularly to train skilled manpower.

*Mr. Roy Mason, President of the Board of Trade, greeting Rumanian trade ministers. In the picture on the left are (left to right): Mr. Cornel Burtica, Rumanian Minister for Foreign Trade, Mr. Ile Verdet, Deputy Prime Minister of Rumania, Mr. Roy Mason, Mr. Dennis Laskey, British Ambassador to Rumania. In the picture on the right, Mr. Mason is seen greeting Mr. Verdet.*

## *No 'short cuts' to export success*

EXPORTING IS A 'hard slog', and there are no short cuts to success. This was stated by Lord James Crichton-Stuart, the Overseas Director of Coutts and Co., bankers, when opening an 'Aids to Exporters' conference in London on March 10.

This was especially true when firms faced competition from a protected home product, he continued.

'You must work hard to sell. There are no short cuts. Nothing infuriates me more than being asked, after a long tiring business trip, whether I have had a good holiday.'

Speakers at the conference, organized by Coutts, told potential exporters about some of the aids and services at their disposal, including those of the Board of Trade, Overseas Posts, ECGD, and export houses.

Although exports had reached a record level, in 1969, the need over the next four to five years will be for further substantial expansion, said Mr. R. Fell, Under Secretary, Export Planning and Development Division, at the Board of Trade.

He explained in great detail the role of the Board of Trade in assisting firms, large and small, to do well in the export field.

After giving a run-down of the various services available with a particular description of the Group Export Representation Scheme, Mr. Fell said the 'encouragement side' of the export business should not be underestimated.

He made special mention of the Queen's Award to Industry scheme in this respect, and said that this year there had been more export applications than ever before.

Companies who received the best help abroad from official services were those who provided Posts with comprehensive information concerning their set-up and overseas requirements. This view was expressed by Mr. L. C. W. Figg, Regional Export Director, Eastern Region, Board of Trade, who until recently was Deputy Consul-General in Chicago.

Although every possible effort was made by Posts to effect the right introductions, firms could do much of the initial ground work by providing as much factual information about their set-up and needs as possible.

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BAVARIAN MARKET, *continued*

British businessmen will be welcome. British firms are also strongly recommended to exhibit at the highly successful trade fairs which are mounted throughout the year in Munich, e.g. Fashion weeks, Electronica, Analytica, Interbrau, Handwerksmesse, Ikofa. In almost all of these there has in the past been Board of Trade sponsored British participation and with very rare exceptions those participating have expressed enthusiasm for the effectiveness of the fairs. Nor must sight be lost of the fact that the Munich fair centre is well placed to attract business from Austria, Switzerland, Italy and Eastern Europe.

**Articles on Baden-Wurttemberg and West Berlin as markets for British goods were published in March 4 and 11 issues.**

## *'German market wide open to British exporters'—Sir Roger Jackling*

THE FEDERAL REPUBLIC of Germany was described as 'A market wide open for British exporters' by Sir Roger Jackling, British Ambassador in Bonn, speaking to nearly 200 businessmen from London and south east England at a luncheon given by BNEC Export Council for Europe on March 11. The occasion was the first leg of a tour of the United Kingdom which the Ambassador is making in order to brief British industry about the present market situation in Germany. He will be speaking at Portsmouth, Leicester, Peterborough, Birmingham, Sheffield, Bradford, Liverpool, Manchester and Glasgow at meetings organized by the Board of Trade and local chambers of commerce.

Sir Roger said that the booming German economy had created full domestic order books, lengthening delivery dates, and rising prices. Its own capital goods industry could not keep pace with the mounting demands on it. Consumer goods demand was also expanding.

'Germans respect British goods, but need to be shown repeatedly what Britain has to offer,' said the Ambassador. 'Britain's exports to Germany rose in value to over £400 million last year, but our market share has fallen to 4 per cent. All Common Market countries have increased their shares, and all hold at least 9 per cent of the market. If our share went up from 4 per cent to 6 per cent, it would mean £200 million a year extra foreign currency for Britain.

'Of course West Germany is a tough, competitive market, one in which the highly professional approach counts. It can take five years to build up a good distribution and sales network, so start now!

'Invisible exports, such as licensing arrangements, banking and consultancy services also offer increasing opportunities.'

Sir Roger said that the German market was not a cohesive whole; it had widely diverse regions, each with their own characteristics. In Britain one tended to regard North Germany as the country's industrial hub, but today southern Germany was in the forefront of industrial expansion, particularly in the new technological and science-based industries. 'The Rhine/Main area is a centre of the chemical industry', he said, 'Baden-Wurttemberg has a fast-growing economy based on light industry, and its consumer demand is 6.4 per cent above the national average; Bavaria has now lost its traditional peasant atmosphere in favour of industries in the electrical goods and machinery fields. Agents who can cover the whole of Germany are comparatively rare.

'The greatest prospects for improving British exports to Germany lie in the capital goods field. As it is some 75 per cent of British exports are in wholly manufactured goods. The commercial services of the Embassy try to help British industry by identifying worthwhile openings.

'Plans to help British exporters take advantage of orpportunities in Germany include a three-week marketing seminar in Stuttgart organized by the British National Export Council; a tour of Britain by the British Trade Council in Germany, and a whole range of inward and outward missions in the capital goods field. I should like to see fuller British participation in the numerous German international Trade Fairs held right across Germany. BNEC Export Council for Europe and the Board of Trade are formulating plans for a series of promotions in the consumer goods and capital goods fields in Hamburg in the autumn of 1971. The great Horten retail group will hold a nation-wide British promotion also in autumn 1971. Real export success is achieved not so much by individual promotions as by the sustained application by British firms of professional marketing effort. I am sure the co-operation of Government and industry in exporting will achieve notable results in the 1970's'.

Lord Brown, Minister of State, Board of Trade, was present at the luncheon. Also there were Lord Caldecote, ECE's chairman designate; Mr. G. V. K. Burton, ECE's acting chairman, Mr. Peter Tennant, director general of BNEC and representatives of the Confederation of British Industry, the Association of British Chambers of Commerce, and the London Chamber of Commerce.

Mr. E. J. W. Hellmuth, BNEC Export Council for Europe's deputy chairman, and member with special responsibility for the Federal Republic of Germany, was host at the luncheon which was given in conjunction with the CBI, the ABCC and the London Chamber of Commerce.

(*See also article on Bavaria as a market for British goods on pages* 717-20).

*BNEC Export Council for Europe held a working luncheon on March 11, at Claridge's Hotel at which Sir Roger Jackling, HM Ambassador in Bonn, addressed representatives of firms located in London and the South East. The luncheon was given in conjunction with the Confederation of British Industry, the London Chamber of Commerce, and the Association of British Chambers of Commerce. (Left to right): Mr. G. V. K. Burton, acting chairman of BNEC Export Council for Europe, Sir Roger Jackling, Mr. E. J. W. Hellmuth, ECE's deputy chairman and council member for Western Germany and Mr. J. Simeon, first secretary (Commercial) in Bonn.*

## *ECGD backs £18.14 million contracts for Panama*

THE EXPORTS CREDITS Guarantee Department signed two Financial Guarantees on March 5 covering the financing of two steam turbine tank vessels each of 264,500 tons deadweight, worth a total of £18.14 million for Panama.

Both vessels are to be built by Harland and Wolff Limited of Belfast, Northern Ireland and will be owned by Carlow Maritime Panama S.A. and Lakeport Navigation Company Panama S.A. respectively. One vessel is scheduled for delivery in the Autumn of 1972 and the other early in 1973.

The two loans, totalling £14.512 million, are being made available by the Midland Bank Limited and are repayable over a period of 10 years from the scheduled date of delivery of each vessel.

## *EFTA Bulletin—a welcome to Iceland*

A PORTRAIT of EFTA's new member is the main feature of the March issue of the *EFTA Bulletin*, which also includes the second in the series of statistical supplements on the member countries. This month it is Denmark.

Supplementary articles discuss structural changes in the pattern of Finnish exports, a new look at EFTA's rules of competition and an analysis of EFTA's progress in the production of electronic components. A review of the Secretariat's annual trade study which has just been published is also included.

Copies of the March edition of the *Bulletin* can be obtained free of charge from the Board of Trade's EFTA Information Centre, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2479/80).

# BOARD OF TRADE REGIONAL EXPORT DIRECTORS

*Pictured at the Board of Trade Regional Export Directors Conference in London, on Wednesday, March 11, are standing (left to right): Mr. L. C. W. Figg, Director, Eastern Region and London; Mr. M. J. Maddigan, Acting Director, Northern Region; Mr. D. C. Dick, Director (designate), Northern Region; Mr. C. G. Cruickshank, Director, South Eastern Region and London; Mr. J. Lister, Director (designate), Yorkshire and Humberside Region; Mr. M. Barrett, Acting Director, Yorkshire and Humberside Region; Mr. L. Eggleton, Director, South West Region. Seated (left to right): Mr. V. F. Kimber, Director, Office for Scotland; Mr. G. T. Plant, Director, Office for Wales; Mr. A. D. Peck, Second Secretary, Board of Trade; Lord Brown Minister of State, Board of Trade; Mr. R. B. Tippetts (chairman), Under Secretary, Export Services Division; Mr. J. F. Jardine, Director, Midland Region; Mr. N. S. Belam, Director, North-West Region. (Addresses are on facing pages.)*

## *BEAMA reports new records for electrical manufacturing industry*

BRITAIN'S ELECTRICAL MANUFACTURING INDUSTRY achieved new records in 1969 according to the annual report of the British Electrical and Allied Manufacturers' Association which states that output of the industry rose to well over £3,000 million in 1969 and exports reached £591 million, a 15 per cent increase on the previous year. The industry gives employment to more than 900,000 people. Introducing the report, Mr. Stanley Steward, managing director of the BEAMA, said that BEAMA had developed a new trade association structure providing, in effect, a federation linking and servicing a number of major product sectors. The advantage of this federal structure was that it gave each product sector the required degree of independence and financial responsibility, whilst having access to the influence and guidance of the BEAMA Council, and facilitates the sharing of common services on the most economical basis.

'I believe that this provides a pointer to the development of trade association structure in Britain. The pooling of resources, sharing of costs and the elimination of wasteful duplication will result in stronger, more effective trade associations better equipped to serve the needs of their industries under modern conditions. Only in this way can our engineering industries match up to their counterparts in Europe, with comparable information and statistics and thus have as effective a voice in the industrial councils of Europe.'

Mr. Steward spoke of rising exports of electrical and allied engineering products which reached a new record of £591 million, nearly 15 per cent up on the £516 million achieved in 1968. The main feature of which was the expansion in electrical exports to Europe showing an increase of 35 per cent to the Common Market and 27 per cent to EFTA. (*See also page iii of the Supplement to this issue.*)

The Richardson Report on the heavy electrical plant industry was called by Mr. Steward, 'a scholarly, independent study of the special problems in our mixed economy'. Its publication, he said: 'has undoubtedly led to widespread recognition that the relationships between dominant, monopoly State-owned buyers and the more fragmented private suppliers, inhibited by legislation from forming a united front, require special treatment. This is very much a matter for commercial decision between customer and supplier and discussions are continuing.

'The problem is also of significance in the Area Board range and certainly most intractable because of the number of parties involved on both sides. BEAMA have represented to the Minister of Technology that the impending reorganization of the supply industry offers an opportunity to secure a closer reflection of the national interest in the purchasing practices of this industry.

'In the meantime, an important outcome of the study of this whole matter has been the Ministry of Technology's decision to establish an Annual Review with BEAMA of the future power programme.'

(*Continued at foot of next page*)

# Board of Trade Regional Organization

*For information and guidance on export matters you are invited to get in touch in the first instance with the Regional Office covering your area. The names of Export Directors, and the addresses, subscriber trunk dialling codes and telex number of the Regional Offices of the Department, and of the Ministry of Commerce (Northern Ireland), aregiven below.*

**Northern Region**
Cumberland, Durham, Northumberland, Westmorland and the North Riding of Yorkshire.
M. J. Maddigan (acting), Wellbar House, Gallowgate, Newcastle-upon-Tyne. NE1 4TJ (Tel. Newcastle 27575. TELEX 53178.

**Yorkshire and Humberside Region**
The East and West Ridings of Yorkshire, the City of York; Lincolnshire. (Parts of Lindsey only.)
M. Barrett (acting), City House, New Station Street, Leeds, LS1 4JQ (Tel. Leeds 38232. TELEX 55472).

**North Western Region**
Cheshire, the High Peak District of Derbyshire (viz., the borough of Buxton and Glossop; the urban districts of New Mills and Whaley Bridge; the rural district of Chapel-en-le-Frith), Lancashire.
N. S. Belam, Sunley Building, Piccadilly Plaza, Manchester, M1 4AT (Tel. 061 236-2171. TELEX 66104).

**Midland Region**
Derbyshire, except the High Peak District (see under North Western Region), Herefordshire, Leicestershire, Parts of Lincolnshire (Holland and Kesteven and the County Borough of Lincoln, Northamptonshire, Nottinghamshire, Rutland, Shropshire, Staffordshire, Warwickshire and Worcestershire).
J. F. J. Jardine, Five Ways House, Islington Row, Birmingham 15 (Tel. 021-643 8221. TELEX 33702).

**Eastern Region and London (E, EC, N, WC postal districts)**
Bedfordshire, Berkshire, Buckinghamshire, Cambridgeshire and the Isle of Ely, Essex, Hertfordshire, Huntingdon and Peterborough, Norfolk, Oxfordshire and Suffolk.
L. C. W. Figg, Cromwell House, Dean Stanley Street, London, S.W.1 (Tel. 01-828 6271, TELEX 25991).

**South Eastern Region and London (NW, W, SE and SW postal districts)**
Dorset (Poole MB only), Hampshire (including the Isle of Wight), Kent, Middlesex, Surrey and Sussex.
C. G. Cruickshank, Cromwell House, Dean Stanley Street, London, S.W.1 (Tel. 01-828 4355. TELEX 25991).

**South Western Region**
Cornwall (including the Isles of Scilly), Devon, Dorset (excluding Poole MB), Gloucestershire, Somerset and Wiltshire.
L. Eggleton, MBE, The Pithay, Bristol BS1 2NE.
(Tel. Bristol 21071. TELEX 44214).

**Wales**
The whole of Wales and Monmouthshire.
G. T. Plant, Government Buildings, Gabalfa, Cardiff, CF4 4YL.
(Tel. Cardiff 62151. TELEX 49267).

**Scotland**
The whole of Scotland.
V. F. Kimber, 314 St. Vincent Street, Glasgow, C3.
(Tel. 041-248 2855. TELEX 77583).
District Office: 29a High Street, Inverness.
(Tel. Inverness 30867).

**Northern Ireland**
Ministry of Commerce (Northern Ireland), 21 Linenhall Street, Belfast. BT2 8BY (Tel. 34488. TELEX 74578).

## *Industrial report on electrical engineering industry*

FUTURE PROSPECTS for growth in the electrical engineering industry, as defined by Economic Development Committee for the Electrical Engineering industry are about the 'guide line' rate of 4 per cent per annum referred to in 'The Task Ahead' both for manufacturing industry generally and for the engineering and electrical goods sector. This is one of the conclusions of 'Industrial report by the Electrical Enginering EDC on the Task Ahead – Economic Assessment to 1972' (free from NEDO, 21 Millbank, London, S.W.1). The exception to this is the heavy plant sector which, over the period of the Report to 1972, is having to contend with the present severe cut-back in the power station programme. Including the effect of this in the overall figures, however, results in a 0.3 per cent per annum rate of increase during 1967/72, which compares with the 5.9 per cent per annum in 1963/68.

This lack of growth together with the industry's determination to maintain the improvement of productivity, i.e. output per head, of 3.7 per cent per annum achieved in 1963/68 could cause a fall in employment of 3.4 per cent per annum in 1967/72 to 416,000. Since 30,000 have already left the industry between 1967 and June 1969, a further reduction of 48,000 may take place up to 1972.

Direct exports are forecast to rise by 4.9 per cent per annum to 1972, to reach £240 million, against 3.6 per cent per annum in 1963/68, and imports to be more than halved, to 9.5 per cent per annum. There would be a small improvement in the industry's balance of trade, to £118 million.

The EDC points out that the overall figures conceal wide differences between sectors of the industry which are subject to very different market and fiscal influences.

The industry recognizes that it must take steps to improve its performance, particularly in achieving further cost reductions. This means fuller utilization of the physical and human resources really needed and the release of those not required. There have been dramatic changes in the structure of the industry in the last few years which have led to a great concentration of management control which facilitates the reorganization of production units.

(*See also page iii of the supplement to this issue*).

**COLOUR BLOCKS FOR 'JOURNAL' FRONT COVER**

**Colour cover blocks:** *Now that the* Journal *is using four-colour illustrations each week on the cover, the Editor will be pleased to consider prints of suitable export pictures for which letterpress blocks are available. Colour transparencies from which the submitting firm intend to have blocks made for their own publicity purposes will also be considered.*

**Black and white prints:** *These should be action photographs showing United Kingdom goods being inspected by overseas buyers or in process of being packed or shipped for export or being unloaded, installed or in use at the overseas destination. Photographs of United Kingdom businessmen in discussion with overseas buyers and of visitors at exhibition stands overseas are also acceptable.*

## British Trade Drive in Switzerland

SWITZERLAND IS TO BE the target of a major British Trade Drive in 1971, promoted by the Board of Trade and the BNEC/Export Council for Europe. The Swiss market has the reputation of being a very discriminating one and the Trade Drive, which is to be conducted on a strictly selective basis, will be specially geared to the market's requirement. The Drive will consist of linked promotions concentrating on categories of products pin-pointed by the British Embassy in Berne as offering market prospects which justify special effort by British exporters.

In drawing up a list of targeted product groups priority has been given to capital goods, but a major effort will also be undertaken in the consumer goods field, and it is expected that large Swiss retail organizations will mount special promotions of British goods. The Trade Drive will include a programme of Inward and Outward Missions and there will be Joint Venture participation in international trade fairs in Switzerland. In Zurich a symposium of British technology, a Consumer Durables Exhibition and a British Fashion Show are planned.

British exports to Switzerland have risen steadily throughout the sixties, but last year they leaped to a record £183.7 million, a massive increase of 34 per cent on the 1968 figure. In keeping with the record trend of exports to Switzerland, our share of the Swiss market also increased, reaching 8.1 per cent. The Swiss market is a large and valuable one; it imports over £2,000 million worth of goods a year and although our exports have doubled in the last five years and we have a larger share of the market, there is clearly opportunity for a further substantial increase in trade – and this the Trade Drive is designed to achieve.

## Mrs Barbara Castle at BIM conference on human resources

MRS. BARBARA CASTLE, First Secretary of State and Secretary for Employment and Productivity, was guest of honour and principal speaker at the British Institute of Management's national conference in London on March 10 and 11. The theme of the conference was 'The management of Britain's human resources in the 1970s'. Speakers included Sir Denis Barnes, Permanent Under-Secretary of State at the Department of Employment and Productivity, who gave a broad outline of the probable trends of manpower demand by industry, Sir Reay Geddes, chairman of the Dunlop Co. Ltd., and Mr. Victor Feather, General Secretary of the Trades Union Congress, who spoke on the manpower problems of Britain in the coming decade.

## Proposed Burmah—Laporte merger

THE DEPARTMENT of Employment and Productivity has announced that as the Burmah Oil Company Ltd. have abandoned their proposal to acquire Laporte Industries (Holdings) Ltd., the Department has given consent to the Monopolies Commission to lay aside the reference which was made to them on February 23.

## Electronics EDC publishes economic assessment report

A PLEA for government and industry to give a higher priority to innovatory activities is the main feature of the Electronics EDC Economic Assessment Report published at the beginning of this week by the National Economic Development Office. The EDC, whose chairman is Sir Eric Mensforth (deputy chairman of John Brown), calls for an extension of the investment grant system to include expenditure on research and development.

The Electronics Industry Economic Assessment Report was prepared in the summer of 1969 and submitted to the National Economic Development Council in November. It shows how the electronics industry sees its prospects up to 1972, in the light of the economic framework set out in 'The Task Ahead'. Copies of the report can be obtained free of charge from NEDO, Millbank Tower, 21/41 Millbank, London, S.W.1.

## Profit from tribology

TRIBOLOGY – the science and technology of interacting surfaces in relative motion – covers a field of enormous significance to every sector of industry. This was stressed by Lord Delacourt-Smith, Minister of State, Ministry of Technology, when he opened a 'Profit from Tribology' exhibition and seminar in Manchester on March 9.

Lord Delacourt-Smith said that the working group set up to study the question in 1964 believed that there were savings of the order of £500 million a year to be achieved in British industry through the application of improved tribology, and as a result of this three centres of tribology were set up in 1968. These were industrial units with the primary functions of consultancy and carrying out of industrially sponsored research on strictly commercial principles.

It was clear, however, that the large savings that could be achieved would not be realized unless management took positive steps to see that good tribological practices were adopted in their own companies. 'That is why,' said Lord Delacourt-Smith, 'we have already arranged two events of this kind and plan more in the future.'

The exhibition at the Grand Hotel, Manchester, which was associated with a day-long symposium on the industrial implications of tribology on March 10, was organized by the Ministry of Technology's North West Regional Office in co-operation with the National Centre for Tribology at Risley, the North West section of the Institute of Mechanical Engineers and the CBI, Manchester. It was held on March 9 and 10.

## Ministry of Technology factory at Welshpool to be extended

MR. GEORGE THOMAS, Secretary of State for Wales, announced on March 13 that the Ministry of Technology are to build an extension of nearly 12,000 sq. ft. to their factory at Henfaes Lane, Welshpool, which is occupied by H. H. Robertson (UK) Ltd. of Ellesmere Port, Cheshire, manufacturers of products for the building trade. They took possession of the 10,000 sq. ft. advance factory at Welshpool, the second to be built in Mid-Wales, at the beginning of 1966 where they initiated an intensive programme of research and development work on plastic sheeting for roofing and building panels, followed by production on an increasing scale.

The company now propose to be in a position to further increase production of these materials for which there is a considerable demand both in this country and abroad and it is hoped that between 40 and 60 per cent of output will be exported. The firm hope to double their present labour force to a total of 60 and most of the new jobs will be for men.

The extension will be built by the Welsh Industrial Estates Corporation on behalf of the Ministry of Technology. Building work has just commenced and the extension will be completed in the autumn.

### New factory developments in South Wales

A NEW PROJECT for Bedwas, the expansion by an American firm at Llantrisant and the allocation of a third advance factory at Merthyr were announced by Mr. Eric Varley, Minister of State, Ministry of Technology recently.

Mr. Varley reported that the vacant Ministry of Technology advance factory of 10,000 sq. ft. at Bercanaid, Merthyr, has been allocated to Suko (Great Britain) Ltd., a new company associated with Suko-Sim GmbH of Stuttgart, Germany, a large manufacturer of self-locking fasteners. The new company will utilize the advance factory to start similar production in the United Kingdom.

The Nodor Co. Ltd., of London, E.15 are to build a new factory at Bedwas, Monmouthshire to which they will transfer all their operations. The company are manufacturers of dart boards, darts and archery arrows, together with a subsidiary company, Glyda Darts Ltd. of Wolverhampton. About a quarter of the combined production is exported. The two companies will concentrate their output in one factory at Bedwas.

Mr. Varley also announced recently that the 30,000 sq. ft. factory at Talbot Green, near Llantrisant, Glamorgan, occupied by Perkin-Elmer Ltd., is to be extended by 23,000 sq. ft. It is expected that, in the course of 1971, a labour force of approximately 200 will be required.

## Application for anti-dumping duties on nitrogenous fertilizers

HAVING CONSIDERED further facts put before them the Board of Trade have now made the Anti-Dumping (Provisional Charge to Duty) (No. 2) Order 1970, imposing on and from March 12, 1970 a provisional charge to duty of £9 per ton on calcium ammonium nitrate originating in Austria, Italy or Sweden, and a provisional charge to duty of £6 per ton on calcium ammonium nitrate originating in the Netherlands.

The Board announced on February 19 that they were considering an application under the Customs Duties (Dumping and Subsidies) Act 1969 for the imposition of anti-dumping duties on imports of calcium ammonium nitrate, ammonium sulphonitrate and ammonium nitrate from Belgium and the Federal Republic of Germany, and that they had made an Order imposing a provisional charge to duty as from February 20, 1970 of £9 per ton on imports of calcium ammonium nitrate originating in these two countries. They also stated, and now state again, that if evidence of dumping of calcium ammonium nitrate from any other country or of ammonium sulphonitrate or ammonium nitrate from any country comes before them while these Orders are in operation, they will consider whether it would be expedient to impose provisional charges on these imports too.

For the purpose of implementing the Anti-Dumping (Provisional Charge to Duty) (No. 2) Order 1970, the Board of Trade have directed that proof of the country of origin shall be furnished to HM Customs and Excise in respect of calcium ammonium nitrate exported to the United Kingdom from Austria, Belgium, France, the Federal Republic of Germany, the Soviet Zone of Germany, Italy, the Netherlands, and Sweden.

A supplementary statement of case will be made available to interested parties who give an undertaking to treat the information contained in the statement in strict confidence. Requests for the statement, together with an undertaking in these terms, should be addressed in writing to the Board of Trade, Tariff Division, Room 107, Brunswick House, 2 Central Buildings, Matthew Parker Street, London, S.W.1.

Any representations which interested parties may wish to make in connection with this application should be submitted in writing to the Board of Trade at the above address as soon as possible and not later than March 31. Such representations in summarized form and without attribution to the source may be passed to the applicants for comment. Those making the representations should stipulate any particular points which they do not wish to be disclosed.

**Notes**

The Provisional Charge to Duty Order will remain in force for three months unless previously extended or revoked or superseded by an Order imposing a definitive anti-dumping duty (which may be made retrospective to the date of the imposition of the provisional charge but not before). The rate of any restrospective duty cannot be higher than the provisional charge.

A provisional charge is not duty as such; but security, normally by cash deposit, will be required by HM Customs. For the payment of any retrospective duty which may be imposed.

If an Order imposing a definitive duty retrospective is not made before the provisional charge lapses or is revoked, the security will be returned. If such an Order is made, the security will be set off against the duty. If the period or rate of the definitive duty is less than that of the provisional charge, the appropriate repayments will be made.

The purpose of the direction, that proof of origin be furnished to HM Customs and Excise, is to assist them in ensuring that the charge is made on imports originating in the countries specified in the Order even if not consigned direct from them.

## Applications for temporary exemption from import duty

THE BOARD OF TRADE are considering applications for the temporary exemption from import duty of the materials listed below on the grounds that these materials are not made in this country or the Commonwealth or the supply available from these sources is not substantial having regard to the existing United Kingdom demand.

Representations are invited from manufacturers in this country or agents of Commonwealth manufacturers who consider they are, or will be within a reasonable period, in a position to supply a substantial proportion of the United Kingdom demand for these materials, or who are interested in their future production.

Temporary exemptions come into effect on the operative date of the Treasury Order in which the materials are specified and normally continue until the end of the current calendar year, when they are reviewed.

Interested parties who wish to make representations should address them to Tariff Division, Board of Trade, Brunswick House, 2 Central Buildings, Matthew Parker Street, London, S.W.1, preferably through a Trade Association, giving the respective reference shown below and stating whether their names may be passed to the applicants for temporary exemption. Representations should be received by April 1.

| Tariff Heading | Proposed definition for tariff purposes | Applied for as | Exemption required until | Reference |
|---|---|---|---|---|
| 29.23 | 2, 3, 5, 6, 2', 3', 5', 6'-Octachlorodi - (2 - hydroxy ethylamino) biphenyl | bis (hydroxy - 2 - ethyl - amino) octachloro phenyl | December 31, 1970 | 13400 |
| 29.34 | PhenyltrichloroWilane | As in previous column | December 31, 1970 | 13416 |
| 29.35 | 4 - Amino - 5 - cyano - 2 - methylpyrimidine | As in previous column | December 31, 1970 | 13406 |
| 85.2[2] | Moving coil receivers having an overall diameter of 52 millimetres, of a kind for use with electro medical apparatus (for example, clinical audiometers) | Moving coil telephone receivers | December 31, 1970 | 10211 |

## Marking of packets of soap and detergent powders

THE WEIGHT of packets of soap and detergent powders used in the home can now be marked entirely in ounces instead of in pounds and ounces. This will allow consumers to compare more easily quantities offered at different prices. The Board of Trade have made this new regulation to enable the Soap and Detergent Industry Association to implement part of a code agreed with the Consumer Council and the Consumer Association.

The new rule is included in regulations which consolidate and replace the existing Weights and Measures (Marking) Regulations and the Weights and Measures (Abbreviations of Units of Measurement) Regulations. The other main changes are that additional internationally used symbols for metric units are permitted for use for trade and that, after December 31, 1971, the addition of a final 's' at the end of a metric symbol to indicate the plural is prohibited.

The Regulations, which come into operation on March 17, are the Weights and Measures (Marking of Goods and Abbreviations of Units) Regulations 1970 (S.I. 1970, No. 350). Copies can be obtained from HMSO, 49 High Holborn, W.C.1, and branches, price 1s. (or 1s. 4d. by postage from HMSO, PO Box 569, London, S.E.1).

**Note:**

The remaining part of the code can be implemented by the soap and detergent manufacturers and packers without the necessity to amend the marking regulations.

Details of the code are available from the Consumer Council.

The symbols referred to are the internationally agreed symbols or abbreviations known as 'S.I. units' (Système Internationale d'Unités).

## Appeal by Trans Meridian (London) Ltd. against ATLB decision dismissed

THE BOARD OF TRADE have dismissed two appeals by Trans Meridian (London) Limited against the decision of the Air Transport Licensing Board whereby on no flight may that airline make available cargo capacity to more than four consignors (each of whom must be either the owner or seller of the goods carried). Trans Meridian wanted this restriction removed.

The Board of Trade's decision relates solely to the circumstances of the case under appeal, and should not be taken to imply the Board's rejection of the arguments on regulation of freight charters in paragraphs 738 and 744 of the Edwards Committee Report. The Board of Trade look to the Air Transport Licensing Board, and to the Civil Aviation Authority when it is established, to consider how far and fast it might be reasonable to move in the direction

*(Continued at foot of next page)*

# New units of measurements for energy

**This document is being given wide circulation by Government departments, professional bodies and trade associations, but anyone who does not receive a copy and wishes to provide answers to the questions or add any other views on the metric units of measurement of energy to be used in trade, commerce or everyday life is invited to send their comments direct to the Secretary, Advisory Committee on Legal Units of Measurement, Ministry of Technology, Standards Division, Abell House, John Islip Street, London, S.W.1.**

TO ASSIST in the programme of conversion to the metric system of measurement which is taking place in the United Kingdom, the Minister of Technology has appointed an Advisory Committee on Legal Units of Measurement to advise him on the units of measurement to be used. In principle, the Government has accepted, as a basis for the changeover to the metric system, the International System of Units (SI) as recommended by the General Conference on Weights and Measures, which was set up by international agreement in 1875 by the Metre Convention. The United Kingdom joined the Convention in 1885.

The Committee wishes to receive views on the energy units to be used in trade, commerce and everyday life. The Committee is concerned to reduce the number of units for energy in common use to a minimum and to ensure maximum simplicity and comparability between energy in different forms. Answers to the questions at the end of this article would be welcomed by not later than June 1. It is the Committee's intention to circulate a report taking account of the answers received before making recommendations to the Minister of Technology.

### The watt, kilowatt and megawatt

There is international agreement that the watt, and its multiples and submultiples, should be the only units of power used in the future for all technical and trade purposes. This is the recommendation of the General Conference of Weights and Measures, the International Organization for Legal Metrology, the International Standards Organization and the International Electrotechnical Commission. The recommendation is being implemented throughout the world. The watt and kilowatt are already legal units in the United Kingdom and other industrial countries. It is expected that the kilowatt will replace horsepower, and such units for heat flow rate as kilocalories per hour, thermies per hour, and British thermal units per hour. The international recommendations carry the implication that the rating of all heating appliances should be expressed in watts or in multiples of the watt, and the kilowatt is of a convenient size for the input and output rating of heating appliances and many other purposes.

### The joule

In the International System of Units (SI) the joule, or watt second, is the unit of energy, together with its multiples and submultiples. The kilowatt hour is not a decimal multiple of the joule because there are 3,600 seconds in the hour so that one kilowatt hour is equal to 3.6 megajoules.

It is expected that the joule, because of its simple relationship to the metre, kilogramme, second, ampere and volt, will be used extensively by the engineering and scientific community for technical purposes. The Committee considers that the use of the joule in preference to other units in scientific, and the greater part of engineering calculations, is both right and inevitable.

### The kilowatt hour

The kilowatt hour is the most familiar of all energy units to the public and widely known as the 'unit' of electricity. Its relation to the kilowatt is very simple to understand.

The International Electrotechnical Commission has recommended that the kilowatt hour should continue to be used indefinitely as the unit of electrical energy. The International Standards Organization has listed the kilowatt hour as a unit 'which may be used'.

### The Committee's view

The Committee is, however, primarily concerned with the legal status and the use in public documents of the units to be used in trade, commerce and everyday life.

The view is strongly held by the Committee that it would be very unhelpful to the ordinary citizen and to the industrial consumer to have two energy units in use for the same or similar purposes, and that this must lead to error and confusion in trade. It is also believed by the Committee that this would continue to prejudice consumer protection by making it unnecessarily difficult for the consumer to compare the energy content and cost of different fuels and the performance of different appliances.

A preferred status for the joule and its multiples would ensure that the language of science, engineering, industry, trade and everyday life might eventually be the same. There is no abstract logical reason for having more than one name plus prefixes (e.g. kilo) for the unit of energy in all its forms.

There are, however, the following arguments in favour of the kilowatt hour:

(a) In stating energy consumption in industry or everyday life the energy used in an hour is usually a more useful concept than the energy used in a second.

(b) The kilowatt hour does not involve teaching the public any new words like megajoule and gigajoule.

(c) The kilowatt hour is already the best established in the public mind of all units of energy.

(d) It is not too much to expect all scientists and engineers to know that one kilowatt hour is equal to 3.6 megajoules. It is, however, unnecessary to ask ordinary citizens to remember the definition of the joule and make calculations involving the number of seconds in the hour and 10 to the power of 6 or 9 to calculate their fuel consumption per hour.

(e) The kilocalorie and thermie are still widely used in metric countries, although these units are not recommended for future usage by any of the responsible international organizations. The German Government, for example, are proceeding with legislation which will make the calorie and its multiples unlawful after about 1979. The metric countries therefore also face the taks of changing their energy units within the next few years. The conversion of the kilocalorie and thermie to the watt hour and kilowatt hour involves a much smaller change in magnitude than the conversion to the joule

1 kilocalorie=1.163 watt hour
1 thermie=1.163 kilowatt hour
(1 kilocalorie=4.1855 kilojoules)
(1 thermie=4.1855 megajoules)

The simpler conversion may therefore be more acceptable to metric countries but this will be the subject of further international consultation.

### The selection of a common unit of energy

The balance of general argument is in favour of the adoption of the kilowatt hour as the common energy unit for trade, com-

(Continued on page 725)

TRANS MERIDIAN, *continued from page* 725

suggested in that report. It should be borne in mind that these are questions that require to be considered in a more general context, and on the basis of more information on the economic value of freight operations to different categories of carriers and users, than was forthcoming in relation to this Appeal.

The decision of the Board of Trade accords with the recommendations of Sir Dennis Proctor, KCB, the Commissioner appointed to hear these appeals

Copies of the Commissioner's Report to the Board of Trade and of the Board's Order are available on request from: The Board of Trade (Civil Aviation), Branch CA1(2)A, Room 282, Shell Mex House, Strand, London, W.C.2.

## New address for HM Coastguard

HM COASTGUARD moved from Sanctuary Buildings, Great Smith Street, London, on March 11 to Sunley House, 90-93 High Holborn, London, W.C.1 (Tel. 01-405 6911).

merce and everyday purposes. The watt hour and megawatt hour may also be needed for special purposes. It is assumed that in any event the use of the joule and its multiples by the scientific and engineering community will continue. However, energy units are used very widely in trade, commerce and everyday life. The Committee is therefore concerned to consider the implications for all sectors of the economy before making recommendations to the Minister of Technology.

Bearing in mind both the existing international agreements and the desirability of achieving the maximum simplicity in unit usage, it may still be desirable to use units other than the watt hour, kilowatt hour and megawatt hour in particular applications.

In considering the Committee's questions it may be assumed that the selection of a common unit of energy for trade, commerce and everyday purposes means that this unit would be used for those purposes in all relevant Acts of Parliament, statutory instruments and other public documents. It should also be assumed that the common unit of energy will, in consultation with the interests concerned, replace the British thermal unit, the therm, calorie, frigorie, thermie, foot pound force and other obsolescent units.

**Questions**

1. Do you agree that it would be desirable to adopt a common energy unit for use in trade, commerce and everyday life?
2. If so, do you agree that the kilowatt hour should become the unit of energy to be so used?
3. If you agree, do you consider that the watt hour should also be used and, if so, for what purposes?
4. Do you consider that the megawatt hour should also be used and, if so, for what purposes?
5. If you agree to 1 and 2, do you consider that the joule should, nevertheless, be used in trade, commerce and everyday life and, if so, for what purposes?
6. If so, do you consider that any multiples or submultiples of the joule should be used and, if so, for what purposes?
7. Do you consider that any other units of energy are essential for particular applications in trade, commerce or everyday life?

It would be helpful to the Committee if the answers to questions were accompanied by explanation related to the particular interests of the organization replying.

## *Research and promotion levy orders for wool textile industry*

THE MINISTRY of Technology announce that the Wool Textile Industry (Scientific Research Levy) Order, 1970 and the Wool Textile Industry (Export Promotion Levy) Order, 1970, which were laid before Parliament on February 2, 1970, have now been approved by Parliament and came into effect on March 16,

Copies of the Orders are obtainable price 1s. from HM Stationery Office, 49 High Holborn, London, W.C.1, and branches (by post price 1s. 4d. from HMSO, PO Box 569, London, S.E.1).

## WORK OF BRITISH STANDARDS INSTITUTION

*The British Standards Institution (British Standards House, 2 Park Street, London, W.1) is well known as the official standards organization for this country. It also takes an active part in the work of international standards organizations such as ISO and IEC. Apart from standards work, BSI has several other functions. It runs a certification mark scheme, granting licences to manufacturers to use the BSI 'Kite mark' on products conforming to British Standards. It also undertakes testing work for outside bodies. It runs a Technical Help to Exporters scheme, providing firms selling abroad with information on overseas technical regulations applying to their products. It has been designated as the focal point for the British change to the metric system, which means that it co-ordinates the details and timing of the change in each industry, apart from re-writing thousands of British Standards in metric form.*

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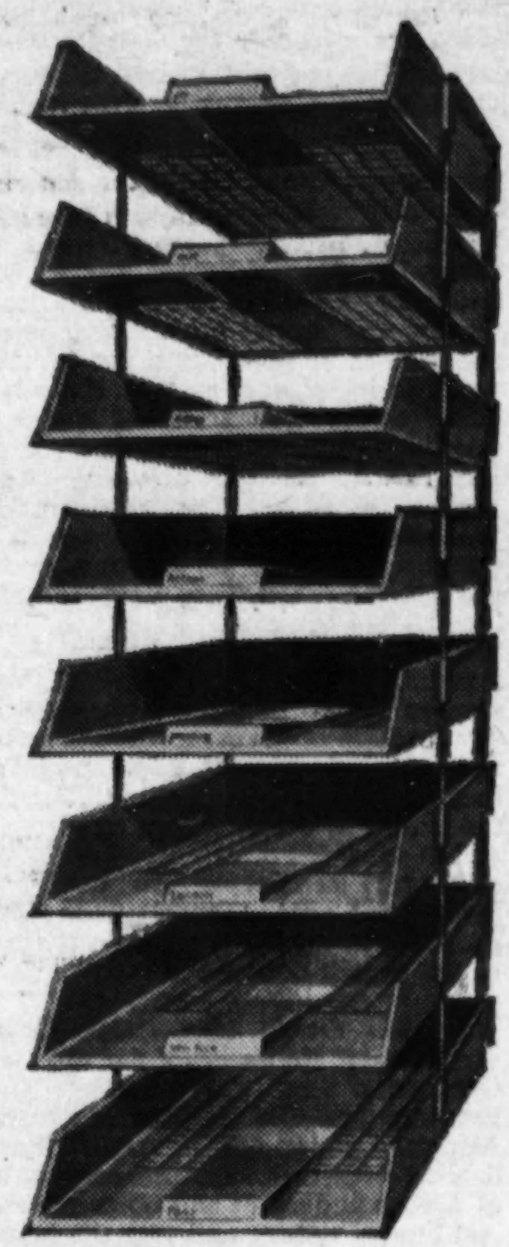

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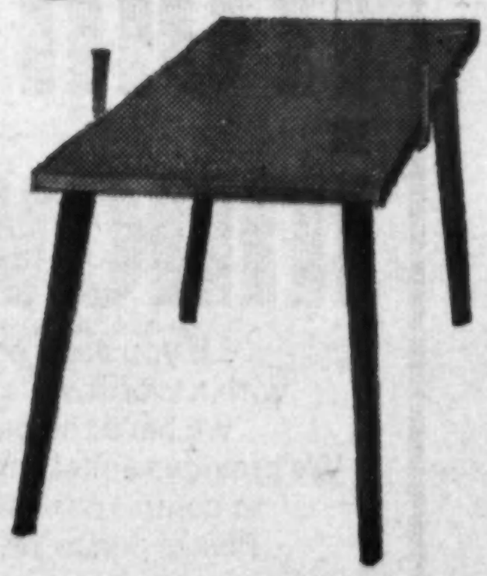

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# REPORTS ON SCIENCE ABROAD

**The United Kingdom Scientific Mission have prepared the following reports. Copies of the reports which are available for distribution in the United Kingdom only, are available free from the Department of Education and Science, International Scientific Relations Division, Africa House, Kingsway, London WC2 (Tel. 01-405 3422, Ext. 115).**

**Preservation Versus Use of the American National Parks and other Scenic and Recreation Areas,** by H. K. Bourne. 5 pages. *UKSM Report No.* 70/1. The United States has a very extensive and well organized system of national parks, forests and other recreational areas. Due to the growth of population the pressure on these areas is increasing so that the environment is being threatened. Some of the problems and possible methods of solution are described in the report. As the population grows, these natural areas may become one of the most valuable of all of a nation's possessions and as pressures increase it becomes even more important, to protect these irreplaceable resources.

**1969 Fluidics Conference,** by H. K. Bourne. 5 pages. *UKSM Report No.* 70/2. Since its introduction about 10 years ago, fluidics have been developed to perform most of the tasks that can be done by electronics. In a few special cases fluidics may be the preferred method. These applications are mainly in explosive, wet or dirty environments and in small factories where the services of skilled electronic technicians are not available. The number of special applications will grow, but fluidics is likely to remain an extremely small item in the overall controls market.

**The 1969 Ocean Engineering Conference; Environmental Engineering for the Ocean and the Continental Shelf. Part I – Waste Management in Estuarine and Coastal Marine Waters,** by M.D. Ashton. 4 pages. *UKSM Report No.* 70/5. Papers dealing with problems involved in the discharge of sewage and solids and other wastes to estuarine and coastal waters, and with the inherent capacity of the sea to destroy foreign bacteria are summarized in this report.

**The 1969 Ocean Engineering Conference; Environmental Engineering for the Ocean and the Continental Shelf. Part II – The Use of Concrete for Construction in a Sea Water or Undersea Environment,** by M. D. Ashton. 4 pages. *UKSM Report No.* 70/6. Papers which described the fabrication and properties of concrete-polymer composites, and discussed the implosion strengths of concrete spheres and cylinders and the general behaviour of concrete exposed to the sea, are summarized in this report. In addition, some Japanese work on the inhibition of marine growth on surfaces through electrolysis of sea water is also summarized.

**Atmospheric Sciences in Miami, Florida,** by H. K. Bourne. 6 pages. *UKSM Report No.* 70/7. The research in progress at the ESSA Atlantic Oceanographic Laboratory, the National Hurricane Research Laboratory and the School of Marine and Atmospheric Sciences in the Miami area, is described. This area is becoming important for the concentration of work on marine sciences and atmospheric physics, particularly on tropical phenomena.

**Environmental Changes Caused by Man-Made Lakes,** by H. K. Bourne. 3 pages. *UKSM Report No.* 70/8. Man-made lakes produced by damming rivers are now so large that they can cause many changes in the environment over an area far greater than that of the impounded water. Careful planning is needed and all implications must be taken into account if some dangerous effects are to be avoided.

**Power from Coal in the Future,** by H. K. Bourne. 5 pages. *UKSM Report No.* 70/9. For several decades it will be necessary to continue to produce electric power from coal in spite of the growing use of nuclear power. New methods of improving combustion of coal without producing atmospheric pollution show promise, but considering funding will be needed for these to be developed. Mining of coal disfigures the landscape and produces other undesirable environmental effects. Methods of dealing with these are described.

**Water Management to Enhance Environmental Quality,** by H. K. Bourne. 5 pages. *UKSM Report No.* 70/10. With the growing demand for water, it is becoming increasingly important to adopt a sound policy for managing and allocating water sources as efficiently as possible. Special methods of increasing water supplies, such as improved techniques for collection, suppression of evaporation and desalting, should also be developed.

**Some Commercial Applications of Ultrasonics,** by H. K. Bourne. 5 pages. *UKSM Report No.* 70/11. The ultrasonics industry is growing steadily. The major application has been for cleaning, but now ultrasonics techniques are being used in other applications such as ultrasonic holographic imaging, gas leak detection, etc. New safety legislation has been introduced covering all types of non-ionizing radiation. Steps are being taken to ensure that this legislation will not be detrimental to the future of the ultrasonic industry.

**The 1970 Cornell Agricultural Waste Management Conference. The Relationship of Agriculture to Soil and Water Pollution,** by M. D. Ashton. 6 pages. *UKSM Report No.* 70/12. Papers describing research into the movement of nutrients from manure and chemical fertilizers into land, groundwater and streams and the pollution caused by this movement, and also nutrient budget studies which have been carried out for several agricultural regions are summarized.


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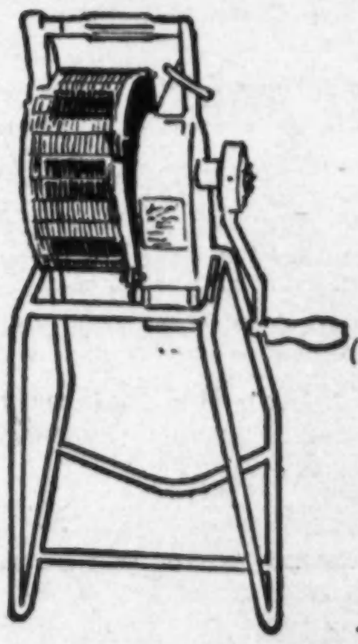

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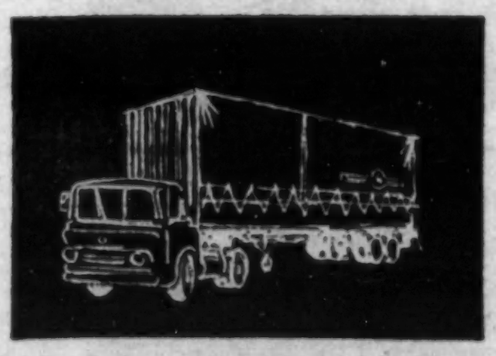

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# Parliamentary Answers on aviation and shipping

FRIDAY, MARCH 6

### Air Transport Licensing Board

Mr. Goronwy Roberts, Minister of State, Board of Trade, was asked what was the average age of the members of the Air Transport Licensing Board; the ages of the youngest and the oldest members of the Board, respectively, and what provision existed for the removal of members from the Board on grounds of age or incapacity. Mr. Roberts replied that the average age of the members was 68. The youngest is 62 and the oldest 75.

Appointments were made for a limited term so the question of removal on grounds of age did not arise. The Board of Trade could declare a member's office vacant if they were satisfied that he had been absent from meetings of the Air Transport Licensing Board without permission for more than six months; had become bankrupt or made an arrangement with his creditors; or had by reason of illness of any other cause become unable or unfit to act as a member.

### Airport security

Mr. Roberts was asked if he would inquire into the circumstances which permitted an official of the British Air Lines Pilots Association to walk through the security net at Heathrow Airport into the central terminal area and the aircraft maintenance centre without challenge at any point. Mr. Roberts said 'Well publicized attempts, whether successful or not, to penetrate into the operational area at Heathrow are bound to lead to at least a partial revelation of the details of security measures and thus afford practical assistance to a would-be assailant. I therefore greatly hope that there will be no repetition of this incident. It must, however, be acknowledged that it has brought to light some remediable weaknesses in the security arrangements and appropriate measures have been put in hand. I expect to receive further reports and I shall continue to take a close personal interest in this problem.'

### International Passenger Survey

A Member asked what were the main objectives of the International Passenger Survey carried out by the Government Social Survey and the period of years over which this Survey has been carried on; and if it would be ended. Mrs. Dunwoody answered: 'To provide the basis for estimates of the travel account in the balance of payments, and of parts of the civil aviation and shipping accounts; to provide an analysis of overseas visitors to the United Kingdom for the use of those concerned with the development of tourism; and to provide the Registrars General with information about the nature of migration, both inward and outward. It has been carried out much in its present form since 1962, and is still needed.'

MONDAY, MARCH 9

### British United Airways: proposed takeover

Asked for a statement in regard to the proposed takeover of BUA by BOAC, Mr. Roberts said: 'The proposed purchase of British United Airways by BOAC results from an initiative by the principal shareholder in BUA, the British and Commonwealth Shipping Company. The negotiations took place between a willing seller and a willing buyer.

'BOAC sought the Board of Trade's approval for this investment. The Board of Trade came to the conclusion that it was acceptable in principle, subject to their being satisfied on a number of financial points.

'The Government's policy remains as set out in their White Paper of last November. This was to welcome a merger of independent airlines that would have strengthened the industry. The Government could not, however, accept as a condition of such a merger the transfer of a significant part of the Air Corporations' routes.

'Following the issue of the White Paper, BUA sought from us a guarantee that such transfers would take place, on the lines of the applications they had already made to the Air Transport Licensing Board to take over by stages all of BOAC's African routes. We could not, consistently with the policy in the White Paper, give a guarantee for this or for any substantial transfer.

'In view of the British and Commonwealth Shipping Company's apparent unwillingness to participate in a second force airline without such a guarantee, and their decision instead to offer BUA for sale to BOAC, there was no ground of policy for the Board of Trade to make any objection of principle.

'It has now been reported in the Press that Caledonian Airways propose to make a competing offer to purchase BUA and they have applied to the ATLB for BUA's routes to be transferred to them. It is for the shareholders in BUA, in the first instance, to consider any such offer and for the ATLB to consider in the usual way any applications that are made to it. I shall of course be glad to consider any points that Caledonian may wish to make to me.

'As far as the proposed purchase by BOAC is concerned, the Government are awaiting further financial information before reaching a final decision.'

### Transport Aircraft Requirements Committee

A Member asked about the present membership of the Transport Aircraft Requirements Committee; and how many times this Committee had met since January 1, 1968. Mr. Neil Carmichael, Joint Parliamentary Secretary, Ministry of Technology, answered: 'This is very wide: it includes representatives from the major airframe and engine companies, the nationalized and independent airlines, Government departments, the Air Registration Board, the Aeronautical Research Council and the Society of British Aerospace Companies. It has met ten times since January 1, 1968.'

### Handley Page

Mr. Carmichael was asked to make a statement on the refurbishing of the Victor II bombers; and if he would name the firm which was to take over this work, in view of the fact that the Handley Page Aircraft Company had gone into liquidation. He answered: 'Subject to contract negotiations, Hawker Siddeley Aviation Ltd., will carry on the design and development work previously undertaken by Handley Page Aircraft Ltd., for the conversion of a number of Victor Mk. II aircraft to tankers.'

Answering a further question: Why design in development work relating to the conversion of Victor II bombers to aerial tankers had been transferred from Handley Page to Hawker Siddeley without giving Short Brothers and Harland and other firms an opportunity to tender, Mr. Carmichael said: On February 27 Handley Page Aircraft Ltd., told the Department that they were no longer able to fulfil their contracts for RAF work. Urgent action was necessary and Hawker Siddeley Aviation Ltd., were asked to take over the contracts immediately. The choice of firm was determined by the Government's long standing policy of placing major airframe design work on either HSA or the British Aircraft Corporation, by HSA's understanding of the task, and by the likelihood of their being able to keep the Victor design team, together. Tenders were not practicable in the circumstances.'

### European Organization for Safety of Air Navigation

In answer to a request for a statement on the work of the European Organization for the Safety of Air Navigation, Mr. Roberts said: 'Copies of the sixth annual report of the Eurocontrol Organization, summarizing its activities during 1968, have been placed in the Library of the House.'

### BOAC reserves

Mr. Roberts was asked what reserves had been accumulated by the British Overseas Airways Corporation since the passing of the Air Corporations Act 1966, and replied that from April 1966 to March 1969 BOAC had accumulated reserves of just over £47 million. Another question was on the amount of indebtedness incurred by BOAC, and subsequently written off by Act of Parliament, since the passing of the Civil Aviation Act 1960. Mr. Roberts said: 'Under the Air Corporation Act 1966, BOAC were relieved of liability for £110 million of their capital borrowings.'

WEDNESDAY, MARCH 11

### British Airports Authority

Mr. Roberts was asked how many members of the British Airports Authority were Government-appointed; what were their names and positions; and how much each drew by way of pay and expenses from public funds. Mr. Roberts answered that all members of the British Airports Authority were appointed by the Board of Trade which also determined their salaries with the approval of the Minister for the Civil Service. The salaries were, however, paid from Authority funds together with any expenses properly incurred on the business of the Authority. The other information sought was as follows:

| | Current salary |
|---|---|
| | £ per annum |
| Mr. P. Masefield, Chairman* | 6,600 |
| Mr. R. Maclellan, Deputy Chairman* | 2,000 |
| Mr. G. V. Hole, Chief Executive | 6,900 |
| Mr. J. C. McGrath, Financial Controller | 6,600 |
| Mrs. D. Self, Member* | 1,000 |
| Mr. I. M. D. Little, Member* | 1,000 |
| Mr. J. R. Edwards, Member* | 1,000 |

*Part-time

# Parliamentary Answers

**Below is a selection of Parliamentary Answers of interest to trade and industry**

## FRIDAY, MARCH 6

### Trade with Commonwealth countries

Mrs. Gwyneth Dunwoody, Parliamentary Secretary, Board of Trade, was asked about action being taken to arrest the decline in the percentage of Great Britain's trade with Commonwealth countries. She replied that our trade with the Commonwealth had grown in recent years but our trade with other areas had grown more, and the Commonwealth share of the total had thus declined. Imports from Commonwealth Preference Area countries were £2,553 million in 1969 as compared with £1,681 million in 1959, and exports to these countries were £2,212 million in 1969 as compared with £1,537 million in 1959. As had been stated before, on February 25, everything was being done to encourage exports to Commonwealth Preference Area markets.

Answering a further inquiry on the percentage of Great Britain's imports coming from Australia, Canada, New Zealand, the rest of the Commonwealth, and South Africa, respectively, in each of the years 1965 to 1968 Mrs. Dunwoody gave the following information:

**Percentage share of United Kingdom Imports**

| | 1965 | 1966 | 1967 | 1968 |
|---|---|---|---|---|
| Australia | 3·8 | 3·5 | 2·7 | 2·7 |
| Canada | 8·0 | 7·2 | 7·1 | 6·5 |
| New Zealand | 3·6 | 3·1 | 2·9 | 2·5 |
| Other Commonwealth countries | 14·2 | 13·6 | 12·1 | 12·0 |
| South Africa | 3·1 | 3·2 | 3·4 | 3·4 |

### Capital Investment

A Member asked for the value for the 12 months to the latest convenient date of capital investment per employee in manufacturing industry in the United Kingdom; and how this compared, from figures available from international sources, with the equivalent figure for other member countries of the Organization of Economic Co-operation and Development. Mr. Alan Williams, Joint Parliamentary Secretary, Ministry of Technology, gave the following information (see note 13). 'The figures should be interpreted with great caution,' he said, 'there are some differences in definition and in methods of compilation and the comparisons are influenced by differences in economic structure.'

| | | Year | Value of capital investment in manufacturing construction industries per employee in these industries £ sterling |
|---|---|---|---|
| United Kingdom | (†) (1) | 1967 | 154 |
| | | 1968 | 167 |
| Austria | (‡) (2) | 1967 | 161 |
| Belgium | (§) (3) | 1967 | 307 |
| Canada | (§) (4) | 1967 | 418 |
| France | (‡) (5) | 1966 | 310 |
| Germany (Federal Republic) | (§) (6) | 1967 | 219 |
| Ireland | (§) (7) | 1965 | 147 |
| Italy | (§) (8) | 1967 | 172 |
| Japan | (§) (9) | 1966/67 | 173 |
| Netherlands | (§) (10) | 1967 | 376 |
| Norway (a) | (§) | 1967 | 354 |
| Norway (b) | (‡) | 1967 | 389 |
| Spain | (‡) | 1966 | 188 |
| Sweden | (§) (11) | 1967 | 303 |
| United States | (†) (12) | 1967 | 500 |

Notes

(†) Wage earners and salaried employees.
(‡) Civilian labour force employed (includes self-employed).
(§) Number of employees.
(1) Employment in June 1967 and June 1968. Includes persons temporarily laid off.
(2) Investment includes mining and quarrying. Employment in February and August 1967.
(3) Investment figures include gas and steam production and car dealers; exclude the cutting of stone. Employment in June 1967; includes persons working abroad.
(4) Employment of persons 14 years of age and over.
(5) Investment figures include fishing and the quarrying of building materials.
(6) Including West Berlin.
(7) Employment in April 1965.
(8) Investment figures include mining and quarrying and gas, electricity and water. Employment of persons aged 14 or over.
(9) Investment per year ending March 31, 1967. Employment for 1967 – persons aged 15 or over.
(10) Investment figures include mining and quarrying, gas, electricity and water. Employment – number of man years.
(11) Employment of persons aged 14 years or over.
(12) Figures exclude the construction industry and relate only to the private sector. Employment figure includes persons aged 16 years or over.
(13) Figures for Luxembourg, Switzerland, Denmark, Portugal, Greece, Iceland and Turkey are not available.

### Sources

Capital expenditure information is from the Organization of Economic Co-operation and Development and where available, combines manufacturing and construction industries. Employment figures are from the International Labour Office Year Book 1969; they are available on a variety of bases, generally in respect of employment at a specified date during the year, which may not be appropriate to set besides capital expenditure during the year.

Conversion from the various currencies to pounds sterling has been made at the average official rates for the years concerned, based on material in the United Nations Year Book of National Accounts Statistics 1968; such conversion rates may not be appropriate for the price of capital equipment.

### BoT-sponsored committees and boards

A Member asked for a list of those bodies, other than boards or committees, but including statutory corporations, to which the President of the Board of Trade appointed members other than civil servants; and if the number of members serving on each such body could be stated. Mrs. Dunwoody gave the following list:

| | |
|---|---|
| Cinematograph Films Council | 22 |
| National Film Finance Corporation | 6 |
| British Film Fund Agency | 3 |
| British Travel Association | 24 |
| British Tourist Authority | 9 |
| British National Export Council | 37 |
| Working Group on Safety Appliances for Pleasure Yachts under 45 ft. in length | 21 |
| The Consumer Council | 12 |
| Council of Industrial Design | 24 |
| Hearing Aid Council | 12 |
| Performing Right Tribunal | 7 |
| Inquiry into Precision Approach Radar | 3 |
| British Overseas Airways Corporation | 11 |
| British European Airways Corporation | 11 |
| British Airports Authority | 6 |
| Commission on Third London Airport | 7 |

Mrs. Dunwoody continued: 'The numbers are given on the same basis as in the previous similar answer of March 3 and *include* civil servants and some members not appointed by the President. I apologise for the error in the note to the previous reply.'

### Motor car exports to Argentine

The following information was given by Mrs. Dunwoody to a Member who asked what were the numbers of cars exported to Argentina in 1966, 1967, 1968, and 1969.

**Exports (including re-exports) of new and used cars**

| | Number |
|---|---|
| 1966 | 70 |
| 1967 | 31 |
| 1968 | 30 |
| 1969 | 34 |

### Prevention of Fraud (Investments) Tribunal

Mrs. Dunwoody was asked what was the average age of the members of the Prevention of Fraud (Investments) Tribunal; the ages of the youngest and the oldest members of the Tribunal; and what provision existed for the removal of members from the Tribunal on the grounds of age or incapacity. She answered that the average age of the members was 64. The youngest was 60 and the oldest 67. 'A member is appointed for a specified period, currently three years, at the end of which he either ceases to be a member or is re-appointed,' said Mrs. Dunwoody.

### Performing Rights Tribunal

Mrs. Dunwoody was asked what was the average age of the members of the Performing Rights Tribunal; the ages of the youngest and the oldest members of the Tribunal, respectively; and what provision existed for the removal of members of the Tribunal on grounds of age or incapacity. Mr. Dunwoody said that the average age of the members was 57. The youngest was 45 and the oldest 67.

Paragraph 1 (3) of the Fourth Schedule to the Copyright Act 1956 provided that the Board of Trade or, in the case of the chairman of the Tribunal, the Lord Chancellor, might declare the office of any member of the Tribunal vacant on the ground of his unfitness to continue in office or incapacity to perform the duties thereof.

Each member was appointed for a term of three years and the question of fitness to continue was considered before a member was invited to serve a further period.

### Metrication Board

The Minister of Technology was asked what was the average age of the members of the Metrication Board; the ages of the youngest and oldest members respectively; and what provision existed for the removal of members from the Board on the grounds of age or incapacity. Mr. Williams said that the average age of the present 14 members of the Board, including the chairman, was approximately 57, the youngest being 45 and the oldest 64.

The chairman and the deputy chairman had been appointed for a period of three years, and other members for two years. The director, who was also a member, was appointed for a period of five years.

## MONDAY, MARCH 9

### Exports of pig carcases

Replying to a question, Mrs. Dunwoody said that 12,036 tons of pig carcases were exported from the United Kingdom during the year 1969.

### Imports of animals

Mrs. Dunwoody was asked how many cattle, sheep and pigs, respectively, were imported in the 12 months to the last convenient date; and how many of each species came from the continent of Europe. She answered that from February 1969 to January 1970, 551,722 cattle, 86,091 sheep and goats, and 1,034 pigs; of which came from Europe 328 cattle, no sheep and 91 pigs. The total number of horses and ponies exported from the United Kingdom during the year 1969, Mrs. Dunwoody said in reply to a further question, was given on page 112 of the Overseas Trade Accounts for December 1969.

(*Continued on next page*)

## MONDAY, MARCH 9

**Capital investment**

Mr. Williams was asked to give in current and in 1963 constant prices for each of the years since 1964, the value of new capital investment in manufacturing industry per employee employed. The following information was supplied:

| Year | Fixed capital formation(†) by manufacturing industry per employee employed(‡) At current prices | At constant (1963) |
|---|---|---|
| | £ | £ |
| 1964 | 137 | 134 |
| 1965 | 155 | 145 |
| 1966(‡) (a) | 166 | 149 |
| (b) | 164 | 147 |
| 1967 | 165 | 148 |
| 1968 | 178 | 153 |
| 1969 (provisional) | 195 | 162 |

(†) *Fixed capital formation* figures are as published in Tables 55 and 56 of 'National Income and Expenditure 1969' for the years up to 1968. The estimate for 1969 is unpublished and provisional. The figures comprise expenditure on new building work and all expenditure (new and secondhand) on plant, machinery and vehicles less receipts from sales of the assets.

(‡) *Employees in employment* are estimated at mid-June each year, as published in Table 15, of 'Monthly Digest of Statistics,' January 1970 (the 1969 figure is provisional). Estimates are not available on a comparable basis over the whole period because of corrections to the industrial classification of many establishments, between June 1966 and June 1967; in consequence, two sets of estimates are given for 1966 (a) excluding the effects of reclassification for comparison with 1964 and 1965 and (b) including the effect of reclassification for comparison with 1967, 1968 and 1969.

Further questions concerned the value of manufacturing industry's investment in machine tools as a proportion of the gross domestic product, and in current and constant 1963 prices for each of the years since 1964, the value of investment by manufacturing industry in machine tools.

Mr. Williams said no figures were available for investment by manufacturing industry alone but estimates were given below for the total investment in the United Kingdom in machine tools. No figures were available for publication at constant 1963 prices.

| | Total UK Investment in Machine Tools (£m) | Percentage of GDP at Factor Cost |
|---|---|---|
| 1964 | 117 | 0·40 |
| 1965 | 131 | 0·42 |
| 1966 | 144 | 0·44 |
| 1967 | 163 | 0·47 |
| 1968 | 145 | 0·40 |

## TUESDAY, MARCH 10

**Industrial development policy for overspill towns**

Asked what modifications had been made in the operation of the i.d.c. policy in the overspill towns, Mr. Anthony Wedgwood Benn, Minister of Technology, said: 'My Rt. Hon. Friend, the Minister without Portfolio, accepted the need, following the report of the Committee on the Intermediate Areas under the Chairmanship of Sir Joseph Hunt, for a somewhat more flexible i.d.c. policy for moves to those overspill towns where planned development may be held up if the flow of industry from an exporting area is impeded. The i.d.c. control will of course continue to be operated so as to give first priority to the Development Areas and the new Intermediate Areas. But I have already made some limited exceptions, after consultation with my Rt. Hon. Friend, the Secretary of State for Local Government and Regional Planning, to take account of the needs of the few overspill towns experiencing such difficulties. For example, save in exceptional circumstances, i.d.cs. are at present available for all firms moving to Telford from the West Midlands conurbation and to existing firms wishing to expand there; and I am glad to say that the prospects for keeping employment in balance with housing at Telford have improved. Similar arrangements are operating in the case of Daventry and will be made in exceptional cases for other overspill towns in difficulties, in all cases to apply only until a satisfactory balance between housing and employment can be foreseen.

'In addition, in view of the substantial growth planned for Milton Keyness, there may be a need to encourage the movement of new industry in the early stages of its industrial development, and I will consider sympathetically applications from London firms prepared to move to the town. We will continue to keep the progress of house building and the provision of industrial employment in these and the other overspill towns under review in the light of the Government's general policy for regional development.'

**Progress of exports**

'I congratulate British exporters on their record achievement in 1969 and I am confident that there will be no relaxation of effort in 1970,' said Mrs. Dunwoody, answering a Member who asked if the President was now satisfied with the rate of progress of exports.

**Import duty on machine parts**

Stating that some exporters were being hampered from obtaining orders due to having to pay import duty on parts imported from the United States used in constructing machinery for export, whereas Canadian exporters could import free of duty and had an unfair advantage over British manufacturers, a Member asked if in the forthcoming Budget action to change this situation would be taken. Mrs. Dunwoody said: 'There are already adequate powers under existing legislation to relieve British exporters from import duty on imported parts where these are incorporated in exports.'

## WEDNESDAY, MARCH 11

**ECGD guarantees for arms sales**

A Member asked for information on the value of the arms sales for 1966, 1967, 1968 and 1969, which were insured by the Export Credits Guarantee Department of which details of premium income were given in the ECGD amounts. Mrs. Dunwoody replied that the special ECGD account for arms guarantees had been maintained since the Financial Year 1966-67. Figures for arms contracts covered under this Account for the last three completed financial years were as follows:

| | |
|---|---|
| 1966-67 | £97,886,600 |
| 1967-68 | £89,348,414 |
| 1968-69 | £49,234,439 |

**Imports of machine tools**

Answering a question on the total value of imports into the United Kingdom of machine tools during each of the last three years; and how much of this was imported from the European Economic Community, Mrs. Dunwoody said that information was given on pages 90-91 of the Overseas Trade Accounts for December, 1968 and December 1969, in total and for each EEC country except Luxembourg; imports from the latter were negligible.

**GATT**

A request was made for a statement on the conference held in Geneva on February 26 of the 76 member nations of the General Agreement on Tariffs and Trade; and what effect Great Britain's application to join the European Economic Community was having on the timing of negotiations or the scale of the Kennedy Round tariff cuts next year. Mrs. Dunwoody replied: 'The 26th Session of the Contracting Parties of the General Agreement on Tariffs and Trade was held at Geneva from February 16 to 27. The Conclusions adopted by the Session covered the whole range of the Organization's work; I will arrange to place the full text in the Library of the House.

'The timing of any further negotiations in the GATT must, therefore, await the results of the work now in train, but Great Britain's application to join the European Economic Community will not affect next year's scheduled Kennedy Round tariff cuts.'

**Trade Descriptions Act**

Answering questions on compulsory marking orders under the Trade Descriptions Act regarding fire-extinguishers, motor tyres and sheets, Mrs. Dunwoody said that proposals for marking orders in respect of these goods were still being studied.

**Fertilizers in Orkney and Shetland**

A Member asked by how much it was expected that the price of fertilizers would be increased in Orkney and Shetland due to the recent increase in duty.

'British production of these fertilizers is sufficient to meet all foreseeable demands in full,' said Mrs. Dunwoody, 'and I understand that the British manufacturers have no intention of increasing, during the present season, the prices for these nitrogenous fertilizers which they announced last summer. The effects of the provisional anti-dumping charges on the price of the imported fertilizers will depend on the commercial arrangements between the importers, merchants and farmers. The reason for imposing these charges was explained in the Answer which my right Hon. Friend gave on March 5 to a Question by my Hon. Friend the Member for West Aberdeenshire.'

## THURSDAY, MARCH 12

**Imports from Rumania**

Mrs. Dunwoody was asked to set out the imports of agricultural commodities of food from Rumania for the last convenient period of 12 months and exports for a similar period, set out in convenient categories. She gave the following information for 1969:

| | Imports £,000 | Exports (including re-exports) £'000 |
|---|---|---|
| Live animals | — | 31 |
| Meat and meat preparations | 1,117 | 1 |
| Dairy products and eggs | 759 | 39 |
| Cereals and cereal preparations | 6,427 | 8 |
| Fruit and vegetables | 937 | 12 |
| Sugar, sugar preparations and honey | 46 | — |
| Coffee, tea, cocoa, spices and manufactures thereof | 21 | 4 |
| Feeding stuffs for animals | — | 742 |
| Miscellaneous food preparations | 350 | 96 |
| Total | 9,657 | 933 |

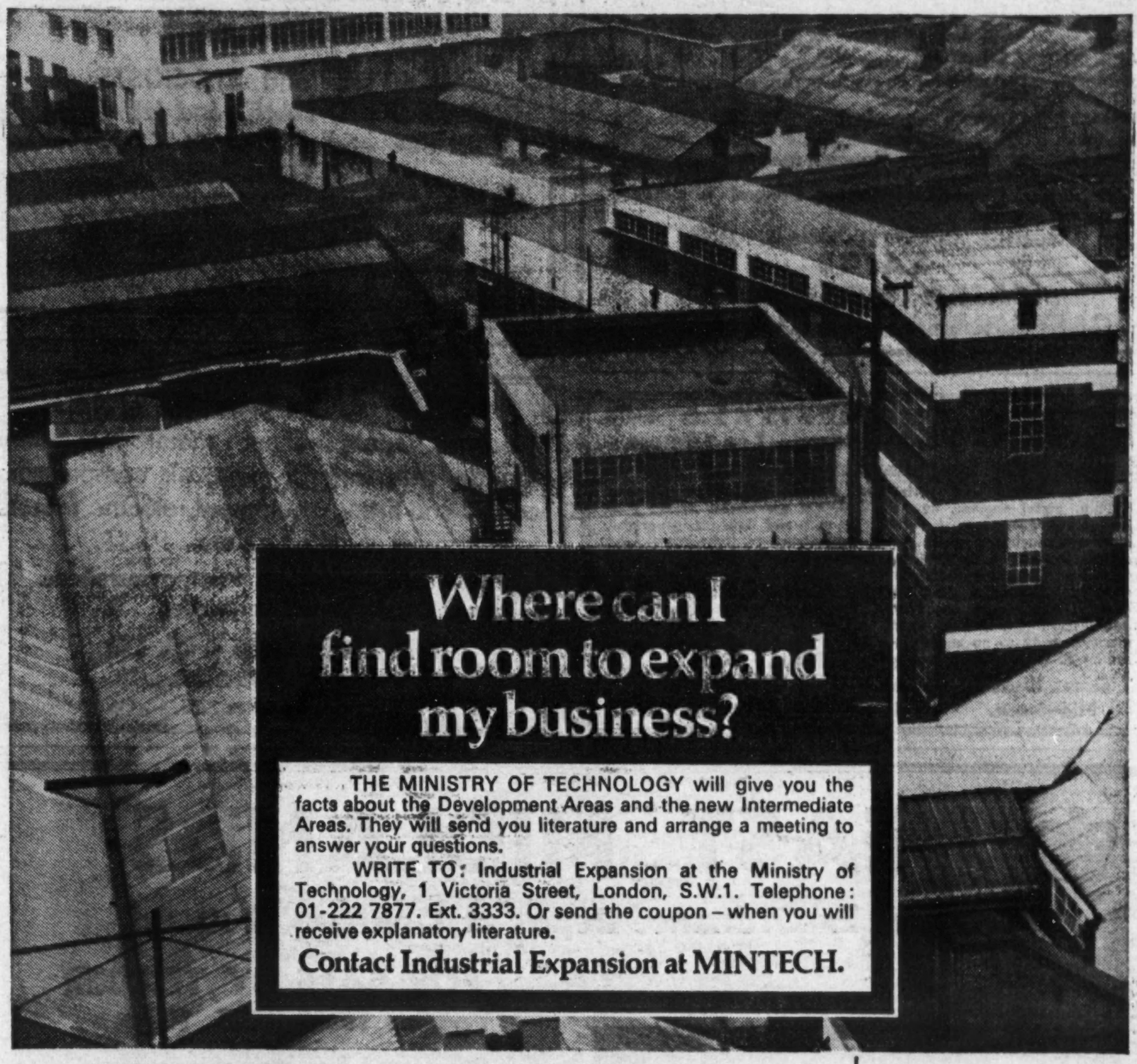
**Agricultural exports**

Asked to set out for the last convenient period of 12 months the total exports of agricultural commodities and agricultural machinery, Mrs. Dunwoody said that total exports of live animals, food and feeding stuffs (excluding fish) in 1969 amounted to £203 million; exports of agricultural machinery and parts totalled £193 million.

**British Agricultural Export Council**

A Member asked what payment was made from public funds to the British Agricultural Export Council; and what results it had achieved.

'In general support of the council £20,000 was paid in 1968/69 and £15,000 in 1969/70,' replied Mrs. Dunwoody. 'It is intended that £10,000 as the final payment in this series of grants shall be made available in 1970/71. The council have established many contacts abroad which have lead to valuable contracts for United Kingdom exporters and which should lead to others in the future.'



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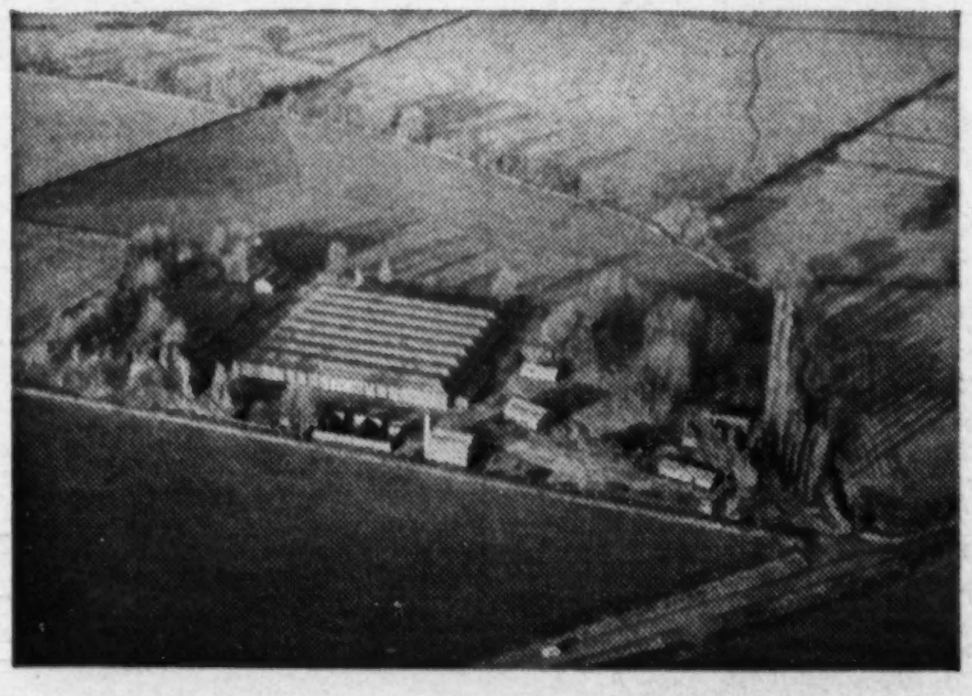

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# Government surplus sales by auction

## MINISTRY OF DEFENCE

| 1970 | Stores | Location | Auctioneers |
|---|---|---|---|
| March 24-25 | Miscellaneous stores | No. 2 Building (adjacent to Indoor Bowling Green) Riverside, Chatham | Fuller, Horsey, Sons & Cassell (Dept. L), 10 Lloyds Avenue, London, E.C.3 (Tel. 01-709 0101) |

Plant and equipment; concrete mixers; portable lifting gantry; gas and electric furnaces; hydraulic trolley jacks; punch card equipment; wooden packing cases; fire extinguishers; asbestos cement ceiling panels; Land Rover and other vehicles spares; radio equipment; scrap metal; MACHINE TOOLS: centre lathes; engraver; welding sets; coil winder; degreasing plant; grinders; valve refacers; milling machines; hacksaws; woodworking lathes; 50-ton hydraulic press; guillotines; bending, rolling and folding machines; electric hand drills and sanders, etc.; CLOTHING: jerseys; raincoats; gloves; overalls; ties; trousers; smocks; greatcoats; berets; blouses; boots and shoes; TEXTILES: webbing pieces; old canvas, webbing, leather, rags, rubber, etc., blankets; curtains; towels; stair carpetting; FURNITURE: settees; sideboards; dressing tables and chairs; dining tables; large quantities of miscellaneous general stores.

| | | | |
|---|---|---|---|
| April 2 | Miscellaneous stores, vehicles | Cavalry Barracks, Butt Road, Colchester | Fenn, Wright & Co. (Dept. L), 146 High Street, Colchester, Essex (Tel. 0206 73171) |

**Landrovers; Fordson 2-ton ET6 and 500E vans; Bedford SP pumps and fire tenders; Coventry Climax fork lift trucks; 15 KVA diesel engined generators; Morris Commercial vans; Thames operations and signals vans; Morris Commercial Minibus; Austin Gipsys; Austin K2 2-ton vans; Austin A40 Countryman cars;** machine tools; miscellaneous scientific instruments; tentage; scrap metals; wrist watches; hydraulic trolley jacks; CLOTHING: battle dress trousers 4 blouses; shirts; shorts; jerseys; denim blouses; berets; greatcoats; socks and stockings; raincoats; dress trousers; ankle boots; blue battledress trousers and blouses; TEXTILES; webb packs; mattresses; tentage; nylon, cotton, tricel and PVC cloth in various lengths; mixed rags, etc.; furniture and kitchenware; large assortment of miscellaneous general stores.

| | | | |
|---|---|---|---|
| April 7-8 | Miscellaneous stores | Regional Depot, RAOC, Hereford | Russell, Baldwin & Bright (Dept. L), 20-21 King Street, Hereford (Tel. 0432 4366) |

Fork lift trucks; pallet transport trucks; industrial tractors; Meadows and other generators; charging sets; machine tools; rangefinders; AR88 receiving sets; switchboards; battery chargers; welding outfits; generator test benches; rectifiers; tyres; electric cable; manila and wire rope; electric lamps and bulbs; extending ladders; sirens and wailers; aircraft fuel pumps; helicopter equipment; sodium thiosulphate; small tools; fire extinguishers; metal pallets; aircraft and other cameras; exposure meters; films; levels; theodolites; clasp knives; avometers; binoculars; watches; FURNITURE: 4 drawer filing cabinets; metal and wooden wardrobes; sideboards; fold flat and other chairs; CLOTHING: battledress; cold weather and other trousers; raincoats; greatcoats and other clothing; TEXTILES: webbing belts; scrap canvas; white and coloured blankets; rags and webbing; aircraft; wireless, M.T. signal and electrical spares; also large collection of miscellaneous stores.

| | | | |
|---|---|---|---|
| April 15 | Miscellaneous stores | TA & VR Centre, Meadowforth Road, Stirling | Dixon & Wallace Ltd. (Dept. L), Bank Buildings, Graham Square, Glasgow, E1 (Tel. 041-554 2447) |

Aircraft equipment and spares; industrial, electrical, electronic and engineering plant; machine tools; vehicle spares; a few vehicles; clothing, textiles and footwear including, trousers; blouses; kilts; greatcoats; raincoats; raincoat linings; combat clothing; boots and shoes, etc.; surgical dressings; wire, sisal and manila rope; trailer mounted generators; binoculars; photographic equipment; electronic test equipment; scrap metals, etc.

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Statistics

# The economy: selected indicators

Symbols used in all statistical tables are:—
.. not available
– nil or less than half the final digit shown
p provisional
r revised
* five week period
ø fifty-three week period

Series expressed as index numbers and seasonally adjusted except where shown otherwise.

| | Gross Domestic Product (expenditure) estimates) | Index of Industrial Production | Consumers' Income and Expenditure | | | | Fixed Capital Expenditure | | | | | Increase in Stocks | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Total | Selected Components | | | | Total | Selected Components | | |
| | | | | | | | | Manufacturing industry | Distributive and service industries | Dwellings | Public sector excluding dwellings | | Manufacturing industry | Wholesalers | Retailers |
| | at 1963 prices | | Personal disposible income | Total consumers' expenditure | | Retail sales | | | | | | | | | |
| | | | at current prices | | at 1963 prices | at 1966 prices | at 1963 prices | | | | | at 1963 prices | | | |
| Base of index | 1963 | 1963 | 1963 | 1963 | 1963 | 1966 | 1963 | 1963 | 1963 | 1963 | 1963 | | | | |
| £m. in base year | 26,826 | | 21,757 | 20,125 | 20,125 | 11,372 | 4,916 | 1,055 | 1,020 | 944 | 1,752 | Series in £ million | | | |
| 1964 | 105 | 108 | 107 | 107 | 103 | .. | 116 | 113 | 119 | 124 | 113 | 642 | 411 | 91 | 50 |
| 1965 | 108 | 112 | 115 | 114 | 105 | .. | 121 | 124 | 118 | 127 | 117 | 400 | 262 | 49 | 50 |
| 1966 | 110 | 113 | 122 | 120 | 107 | 100 | 124 | 128 | 114 r | 128 | 125 | 241 | 147 | 19 | 6 |
| 1967 | 112 | 114 | 126 | 126 | 110 | 101 | 133 | 124 | 120 r | 138 | 143 | 169 | –39 | 10 | 11 |
| 1968 | 115 | 120 | 135 | 134 | 112 | 104 | 138 | 128 | 141 r | 146 | 143 | 160 | –47 | 81 r | 95 |
| 1969 | | 123 p | | | | 103 | | 135 p | 144 p | | | | 206 p | –21 p | 37 |
| 1968 | | | | | | | | | | | | | | | |
| 1st quarter | 115 | 118 | 133 | 134 | 114 | 105 | 137 | 120 | 135 r | 146 | 147 | –74 | –100 | 8 r | 49 |
| 2nd quarter | 113 | 119 | 133 | 131 | 109 | 102 | 135 | 120 | 133 r | 149 | 144 | 61 | 24 | 23 r | 1 |
| 3rd quarter | 115 | 120 | 135 | 135 | 112 | 103 | 137 | 128 | 140 r | 145 | 139 | 40 | 7 | 12 r | 5 |
| 4th quarter | 118 | 122 | 138 | 138 | 113 | 104 | 144 | 144 | 155 r | 144 | 141 | 133 | 23 | 39 r | 40 |
| 1969 | | | | | | | | | | | | | | | |
| 1st quarter | 115 | 122 | 140 | 138 | 111 | 102 | 131 | 121 | 135 r | 138 | 136 | 117 | 103 r | –14 r | 13 |
| 2nd quarter | 115 | 124 | 139 | 141 | 112 | 104 | 133 | 135 | 142 r | 131 | 130 | 52 | 32 | – 6 r | –3 |
| 3rd quarter | 117 | 122 | 141 | 143 | 113 | 103 | 137 | 142 | 151 r | 133 | 132 | –19 | –24 r | – 9 r | –1 |
| 4th quarter | | 123 p | | | | 103 | | 144 p | 148 p | | | | 95 p | – 8 p | 28 |
| 1969 | | | | | | | | | | | | | | | |
| September | | 122 | | | | 103 | | | | | | | | | |
| October | | 121 p | | | | 103 | | | | | | | | | |
| November | | 124 p | | | | 104 | | | | | | | | | |
| December | | 124 p | | | | 103 | | | | | | | | | |
| 1970 | | | | | | | | | | | | | | | |
| January | | | | | | 103 | | | | | | | | | |

| | Orders | | Prices and Costs | | | | Labour | | | Trade | | Balance of Payments current balance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Engineering industries: orders on hand (end period) | Textiles and clothing industries: orders on hand (end period) | Retail price Index | | Wholesale price index: non-food manufacturing industry | | Wholly unemployed excluding school leavers | Unfilled vacancies for adults | Civil employment | Imports | Exports‡ | |
| | at 1963 prices | at 1958 prices | Index† | % increase on year earlier | Basic materials and fuel used† | Manufactured products; home sales† | Basic hourly wage rates (all industries and services) | Mid-month or monthly average | | Quarter or quarterly average | at current prices | | series in £ million |
| Base of index | Dec. 1963 | Apr. 1959 | 16 Jan. 1962 | | 1963 | 1963 | 31 Jan. 1956 | | | | 1963 | 1963 | |
| £m. in base year | | | | | | | | Series in thousands | | | 4,983 | 4,211 | |
| 1964 | 119 | 124 | 107·0 | *3·3* | 103·9 | 101·9 | 148·6 | 361 | 221 | 24,566 | 114 | 105 | –393 |
| 1965 | 123 | 121 | 112·1 | *4·8* | 106·8 | 104·6 | 157·9 | 309 | 265 | 24,785 | 115 | 112 | 81 |
| 1966 | 118 | 105 | 116·5 | *3·9* | 110·2 | 107·3 | 168·5 | 325 | 254 | 24,834 | 119 | 120 | 40 |
| 1967 | 108 | 114 | 119·4 | *2·5* | 108·4 | 108·2 | 175·3 | 515 | 175 | 24,476 | 129 | 120 | –322 |
| 1968 | 108 | 129 | 125·0 | *4·7* | 120·5 | 112·4 | 187·3 | 543 | 189 | 24,319 | 159 | 147 | –309 |
| 1969 | 118 p | 125 p | 131·8 | *5·4* | 125·0 | 115·9 | 197·2 | 538 | 200 | | 167 | 168 | 366 |
| 1968 | | | | | | | | | | | | | |
| 1st quarter | 107 | 117 | 122·1 | *3·0* | 122·9 | 111·4 | 184·8 | 511 | 184 | 24,362 | 158 | 143 | –113 |
| 2nd quarter | 104 | 125 | 125·0 | *4·5* | 119·5 | 112·5 | 185·8 | 550 | 180 | 24,313 | 158 | 139 | –109 |
| 3rd quarter | 104 | 129 | 125·7 | *5·6* | 119·3 | 112·8 | 187·7 | 580 | 182 | 24,293 | 161 | 151 | – 15 |
| 4th quarter | 108 | 129 | 127·2 | *5·6* | 120·4 | 113·1 | 191·0 | 533 | 210 | 24,309 | 160 | 156 | – 72 |
| 1969 | | | | | | | | | | | | | |
| 1st quarter | 111 | 134 | 129·7 | *6·2* | 122·3 | 114·1 | 196·7 | 499 | 206 | 24,324 | 163 | 155 | 23 |
| 2nd quarter | 119 | 131 | 131·8 | *5·4* | 124·2 | 115·1 | 195·6 | 527 | 195 | | 169 | 164 | 68 |
| 3rd quarter | 116 | 131 p | 132·0 | *5·0* | 126·1 | 116·5 | 197·8 | 581 | 192 | | 168 | 175 | 135 |
| 4th quarter | 118 p | 125 p | 133·7 | *5·1* | 127·3 | 118·0 r | 201·5 | 545 | 207 | | 169 | 178 | 140 |
| 1969 | | | | | | | | | | | | | |
| August | 115 | 132 p | 131·8 | *4·9* | 127·0 | 116·4 | 197·5 | 585 | 192 | | 166 | 182 | |
| September | 116 | 131 p | 132·2 | *5·1* | 126·4 | 117·0 | 198·8 | 580 | 199 | | 166 | 178 | |
| October | 116 p | 129 p | 133·2 | *5·4* | 125·9 | 117·5 | 199·0 | 555 | 202 | | 171 | 178 | |
| November | 117 p | 124 p | 133·5 | *5·4* | 127·5 | 117·9 | 200·7 | 536 | 206 | | 168 | 179 | |
| December | 118 p | 125 p | 134·4 | *4·7* | 128 4 | 118·6 r | 204·8 | 545 | 214 | | 170 | 177 | |
| 1970 | | | | | | | | | | | | | |
| January | | | 135·5 | *5·0* | 128·8 p | 119·3 p | 206·0 | 530 | 206 | | 166 | 182 | |
| February | | | | | 129·7 p | 119·7 p | | 512 | 202 | | | | |

† Not seasonally adjusted. ‡ Including re-exports

# Industry's capital expenditure in the fourth quarter of 1969

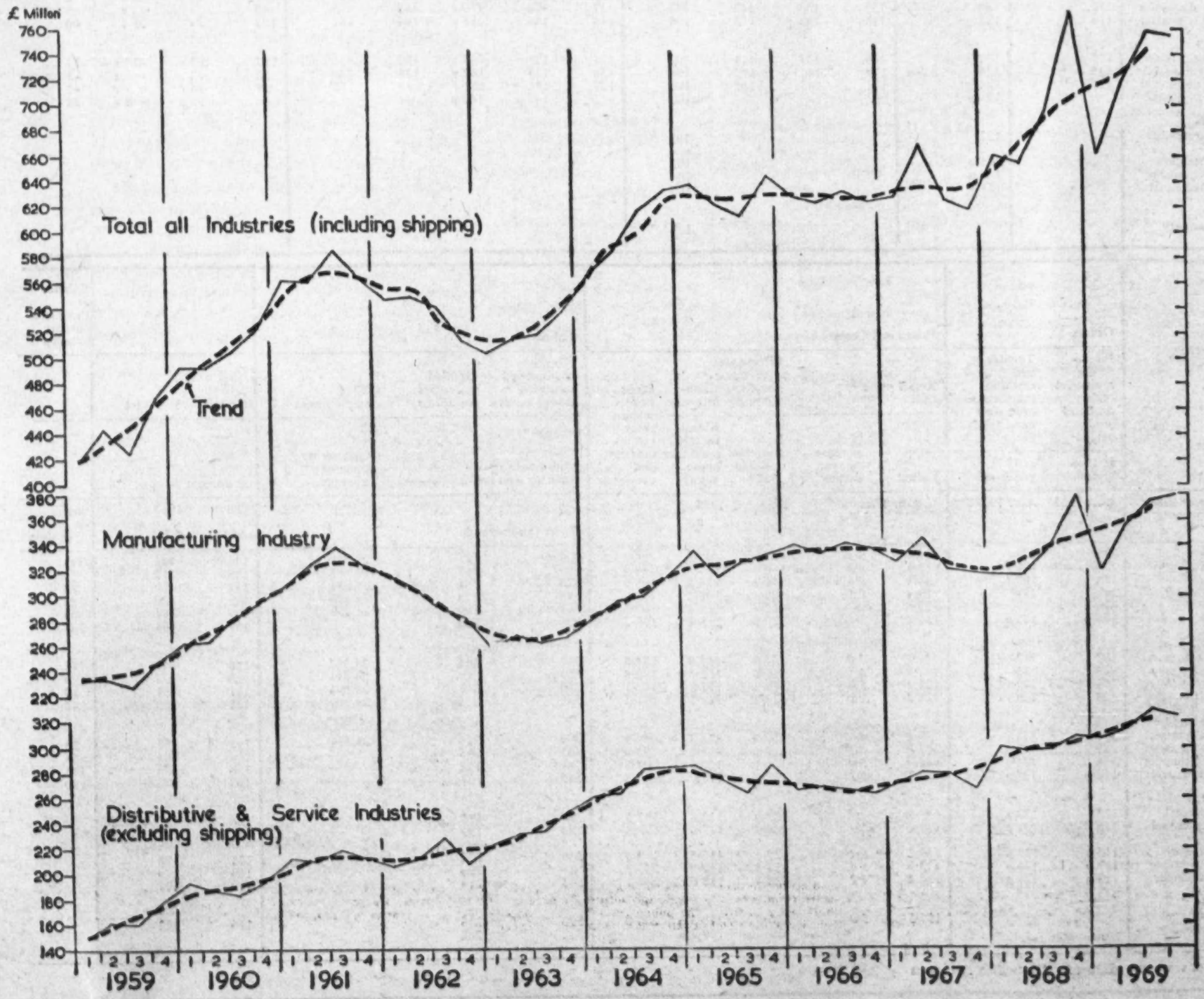
*Sources: Manufacturing Industry – Ministry of Technology*
*Distributive and Service Industries – Board of Trade*
*Shipping Industry – Board of Trade*

## Manufacturing industry

MANUFACTURING INDUSTRY'S expenditure in the fourth quarter of 1969, as provisionally estimated, was in constant 1963 prices about 9 per cent higher than the underlying level of expenditure in the fourth quarter of 1968: the recorded figures showed virtually no increase but, as will be recalled, the fourth quarter of 1968 included some expenditure brought forward from the early part of 1969 because of the ending, at the end of 1968, of the temporary higher rates of investment grants. After allowing for this investment grant distortion there was a 9 per cent increase in expenditure, at constant (1963) prices, between the two quarters.

Compared with the third quarter of 1969 expenditure in the fourth quarter, at constant (1963) prices, seasonally adjusted, was only about 1 per cent higher. The rise between the second and third quarters had been sizeably greater at 6 per cent but the quarterly series tends to be volatile and the apparent reduction in

**Industry's fixed capital expenditure at 1963 prices seasonally adjusted.**



the quarter-to-quarter rate of increase may reflect erratic movements.

For the year 1969 as a whole recorded expenditure at constant prices, as provisionally estimated, was 6 per cent above expenditure in 1968; if, however, allowance is made for the distortion between the fourth quarter of 1968 and the early part of 1969 because of the ending of the temporarily higher rate of investment grant on December 31, 1968, the increase between 1968 and 1969 was about 11 per cent. The out-turn for 1969, as provisionally estimated, is therefore consistent with the interpretation of the results of the Investments Intentions Inquiry taken in August/September 1969 (see *Board of Trade Journal*, October 22, 1969) which said 'a 10 per cent increase in the underlying trend of investment, an increase which represents, in terms of recorded figures in 1968 and 1969, something in the region of 5 per cent between the years.'

All types of assets shared in the rising level of expenditure during 1969. The highest rate of increase between 1968 and 1969 was recorded in expenditure on new building work which, with a 14 per cent increase on its 1968 level, reached in 1969 the previous peak level of 1965. Expenditure on vehicles and plant and machinery were each higher in 1969 than in any previous year. The latter, accounting for the greatest part of manufacturing industry's investment, was about 8 per cent higher after adjustment for the investment grants distortion than in the peak year of 1966 of the previous cycle.

**Distributive and service industries**

Following a sharp rise in the third quarter, the volume of capital expenditure by the distributive and service industries excluding shipping eased back a little in the fourth quarter (on provisional figures) but remained higher than in any quarter before the third. Investment in the fourth quarter was 5 per cent more than in the fourth quarter of 1968, although in the earlier period the level was probably inflated to some extent by the ending of the higher rate of investment grant. In 1969 as a whole the volume of investment by the distributive and service industries increased by 6 per cent compared with 1968, or by a little more if the distortion caused by the change in the rates of investment grant is allowed for. Higher expenditure in new building work and on vehicles accounted for most of the rise, with increases of 7 per cent and 8 per cent respectively. Investment in plant and machinery increased by 3 per cent.

**Shipping industry**

Investment by the shipping industry in the fourth quarter was much the same as on average in the two preceding quarters. For the last year as a whole the recorded figures show a fall in expenditure compared with 1968, but this reflects the bringing forward of expenditure from 1969 to 1968 because of the ending of the higher rate of investment grant. If allowance is made for this, the volume of investment by the shipping industry in 1969 was probably rather higher than in 1968. Expenditure in both 1968 and 1969 was much greater than in earlier years.

**Revisions to figures**

The figures of capital expenditure by the distributive and service industries have been revised since they were last published.

The quarterly estimates of capital expenditure are based in the first instance on returns from a sample of companies who contribute voluntarily to the inquiry. In the case of the distributive and service industries the contributing companies account for rather more than a third of all investment by the group. The quarterly inquiries are supplemented by statutory annual inquiries, usually on a sample basis but using larger samples, and by comprehensive bench-

(*Text continued overleaf*)

**Table 1. Industry's fixed capital expenditure at 1963 prices seasonally adjusted**

£ million

| | Total | Analysis by industrial sectors | | | Analysis by type of asset | | |
|---|---|---|---|---|---|---|---|
| | | Manufacturing industries | Distributive and service industries (excluding shipping) | Shipping industry | New building work | Vehicles | Plant and machinery |
| 1960 | 2,013 | 1,104 | 758 | 151 | 594 | 425 | 994 |
| 1961 | 2,274 | 1,301 | 852 | 121 | 699 | 406 | 1,169 |
| 1962 | 2,149 | 1,196 | 852 | 101 | 696 | 364 | 1,089 |
| 1963 | 2,075 | 1,055 | 936 | 84 | 650 | 391 | 1,034 |
| 1964 | 2,402 | 1,190 | 1,088 | 124 | 723 | 494 | 1,185 |
| 1965 | 2,515 | 1,309 | 1,107 | 99 | 756 | 472 | 1,287 |
| 1966 | 2,509 | 1,351 | 1,063 | 95 | 719 | 464 | 1,326 |
| 1967 | 2,538 | 1,310 | 1,095 | 133 | 689 | 503 | 1,346 |
| 1968 | 2,785 | 1,349 | 1,208 | 228 | 719 | 632 | 1,434 |
| 1969 | 2,896 | 1,428 | 1,280 | 188 | 790 | 624 | 1,482 |
| 1963 1st quarter | 504 | 257 | 223 | 24 | 161 | 92 | 251 |
| 2nd quarter | 515 | 268 | 231 | 16 | 165 | 92 | 258 |
| 3rd quarter | 519 | 263 | 233 | 23 | 160 | 99 | 260 |
| 4th quarter | 537 | 267 | 249 | 21 | 164 | 108 | 265 |
| 1964 1st quarter | 567 | 281 | 260 | 26 | 168 | 117 | 282 |
| 2nd quarter | 586 | 295 | 263 | 28 | 177 | 117 | 292 |
| 3rd quarter | 617 | 299 | 282 | 36 | 188 | 132 | 297 |
| 4th quarter | 632 | 315 | 283 | 34 | 190 | 128 | 314 |
| 1965 1st quarter | 637 | 336 | 285 | 16 | 201 | 112 | 324 |
| 2nd quarter | 620 | 314 | 274 | 32 | 187 | 124 | 309 |
| 3rd quarter | 613 | 327 | 264 | 22 | 185 | 111 | 317 |
| 4th quarter | 645 | 332 | 284 | 29 | 183 | 125 | 337 |
| 1966 1st quarter | 627 | 340 | 265 | 22 | 181 | 114 | 332 |
| 2nd quarter | 623 | 333 | 267 | 23 | 177 | 118 | 328 |
| 3rd quarter | 634 | 341 | 267 | 26 | 181 | 118 | 335 |
| 4th quarter | 625 | 337 | 264 | 24 | 180 | 114 | 331 |
| 1967 1st quarter | 627 | 326 | 270 | 31 | 179 | 119 | 329 |
| 2nd quarter | 667 | 345 | 279 | 43 | 178 | 138 | 351 |
| 3rd quarter | 626 | 321 | 279 | 26 | 166 | 122 | 338 |
| 4th quarter | 618 | 318 | 267 | 33 | 166 | 124 | 328 |
| 1968 1st quarter | 661 | 316 | 301 | 44 | 171 | 147 | 343 |
| 2nd quarter | 656 | 317 | 298 | 41 | 180 | 137 | 339 |
| 3rd quarter | 695 | 337 | 299 | 59 | 185 | 159 | 351 |
| 4th quarter | 773 | 379 | 310 | 84 | 183 | 189 | 401 |
| 1969 1st quarter | 663 | 319 | 308 | 36 | 188 | 143 | 332 |
| 2nd quarter | 718 | 355 | 316 | 47 | 197 | 156 | 365 |
| 3rd quarter | 759 | 375 | 330 | 54 | 204 | 162 | 393 |
| 4th quarter | 756 | 379 | 326 | 51 | 201 | 163 | 392 |

The total of manufacturing industry and of the distributive and service industries covers a wide sector of the economy, accounting – after exclusion of dwellings – for about 51 per cent of total capital expenditure in 1968. The total comprises most industries and services outside agriculture, forestry and fishing, coalmining, public utilities, the public transport corporation and public administration. The excluded parts are, except for agriculture, very largely in the public sector of the economy. For all industries covered, public expenditure (e.g. by the British Steel Corporation) is included. However, the figures are largely representative of the trend of expenditure of private industry and business.

For other footnotes, see end of article.

## Table 2. Fixed capital expenditure of manufacturing industry at 1963 prices seasonally adjusted

£ millio

| | Total | Analysis by industry group | | | | | | | | | Analysis by type of asset | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Food, drink and tobacco | Mineral oil refining | Chemicals and allied industries | Metal manufacture | Engineering shipbuilding and metal goods | Vehicles | Textiles leather and clothing | Paper printing and publishing | Other manufacturing industries | New building work | Vehicles | Plant and machinery |
| 1960 | 1,104·2 | 137·8 | 16·6 | 143·8 | 204·0 | 251·7 | 86·0 | 93·1 | 73·3 | 97·9 | 285·0 | 69·1 | 750·1 |
| 1961 | 1,301·1 | 146·9 | 24·6 | 174·3 | 266·4 | 275·1 | 115·3 | 111·1 | 80·3 | 107·1 | 343·7 | 65·9 | 891·5 |
| 1962 | 1,195·8 | 145·2 | 17·5 | 173·3 | 228·6 | 242·4 | 103·7 | 95·4 | 80·7 | 109·0 | 321·7 | 57·0 | 817·1 |
| 1963 | 1,055·2 | 145·0 | 26·8 | 135·9 | 136·1 | 239·4 | 98·0 | 86·5 | 79·7 | 107·8 | 263·6 | 69·5 | 722·1 |
| 1964 | 1,189·7 | 162·2 | 28·1 | 170·8 | 114·4 | 287·2 | 86·1 | 117·1 | 90·8 | 133·0 | 291·4 | 85·1 | 813·2 |
| 1965 | 1,308·6 | 166·7 | 27·0 | 213·0 | 112·8 | 301·9 | 103·7 | 132·8 | 98·8 | 151·9 | 319·2 | 88·1 | 901·3 |
| 1966 | 1,350·9 | 161·6 | 50·2 | 231·1 | 116·0 | 307·7 | 115·2 | 129·1 | 86·2 | 153·8 | 307·8 | 84·8 | 958·3 |
| 1967 | 1,310·0 | 186·3 | 77·2 | 192·0 | 116·4 | 300·6 | 116·4 | 105·8 | 83·7 | 131·6 | 267·7 | 87·8 | 954·5 |
| 1968 | 1,349·5 | 204·3 | 90·5 | 199·0 | 99·2 | 306·1 | 100·1 | 129·5 | 80·5 | 140·3 | 279·7 | 96·5 | 973·3 |
| 1969 | 1,428·2 | | | | | | | | | | 320·2 | 101·2 | 1,006·8 |
| 1963 1st quarter | 257·5 | 33·4 | 5·0 | 32·6 | 40·1 | 59·0 | 24·0 | 20·6 | 19·0 | 23·8 | 64·5 | 15·0 | 178·0 |
| 2nd quarter | 268·1 | 36·4 | 6·4 | 35·1 | 36·9 | 60·2 | 25·0 | 20·7 | 20·7 | 26·7 | 67·7 | 17·2 | 183·2 |
| 3rd quarter | 263·0 | 35·8 | 7·3 | 34·1 | 29·7 | 61·8 | 24·6 | 21·9 | 20·4 | 27·4 | 64·4 | 18·6 | 180·0 |
| 4th quarter | 266·6 | 39·4 | 8·1 | 34·1 | 29·4 | 58·4 | 24·4 | 23·3 | 19·6 | 29·9 | 67·0 | 17·8 | 180·9 |
| 1964 1st quarter | 280·7 | 39·3 | 10·3 | 37·6 | 28·2 | 67·0 | 21·2 | 25·3 | 22·1 | 29·7 | 69·2 | 20·7 | 190·8 |
| 2nd quarter | 295·1 | 40·8 | 6·6 | 41·1 | 27·8 | 72·1 | 23·0 | 28·4 | 21·1 | 34·2 | 72·8 | 21·2 | 201·1 |
| 3rd quarter | 298·7 | 41·8 | 5·4 | 42·7 | 29·1 | 73·0 | 19·5 | 29·7 | 24·4 | 33·1 | 72·8 | 21·6 | 204·3 |
| 4th quarter | 315·2 | 40·3 | 5·8 | 49·4 | 29·3 | 75·1 | 22·4 | 33·7 | 23·2 | 46·0 | 76·6 | 21·6 | 217·0 |
| 1965 1st quarter | 335·5 | 42·0 | 6·8 | 52·0 | 28·7 | 80·1 | 25·1 | 35·0 | 26·8 | 39·0 | 85·2 | 22·4 | 227·9 |
| 2nd quarter | 314·5 | 39·7 | 6·2 | 51·0 | 28·1 | 72·1 | 24·0 | 31·4 | 26·1 | 35·9 | 78·0 | 21·2 | 215·3 |
| 3rd quarter | 327·0 | 42·7 | 6·2 | 58·0 | 28·8 | 69·9 | 26·4 | 34·3 | 22·8 | 37·9 | 79·3 | 21·1 | 226·6 |
| 4th quarter | 331·6 | 42·3 | 7·8 | 52·0 | 27·2 | 79·8 | 28·2 | 32·1 | 23·1 | 39·1 | 76·7 | 23·4 | 231·5 |
| 1966 1st quarter | 339·6 | 40·9 | 10·0 | 61·2 | 28·7 | 74·9 | 31·0 | 31·6 | 20·6 | 40·7 | 76·5 | 21·6 | 241·5 |
| 2nd quarter | 333·3 | 39·6 | 11·6 | 55·0 | 27·6 | 77·6 | 28·8 | 34·8 | 20·7 | 37·6 | 74·7 | 22·5 | 236·1 |
| 3rd quarter | 341·4 | 40·0 | 14·6 | 57·9 | 29·2 | 78·3 | 27·8 | 31·9 | 21·5 | 40·2 | 77·7 | 21·1 | 242·6 |
| 4th quarter | 336·6 | 41·1 | 14·0 | 57·0 | 30·5 | 76·9 | 27·6 | 30·8 | 23·4 | 35·3 | 78·9 | 19·6 | 238·1 |
| 1967 1st quarter | 326·5 | 46·4 | 15·2 | 47·4 | 30·3 | 74·6 | 28·6 | 28·6 | 21·0 | 34·4 | 73·9 | 19·5 | 233·1 |
| 2nd quarter | 344·5 | 47·0 | 19·6 | 55·1 | 31·9 | 79·1 | 31·0 | 26·6 | 21·9 | 32·3 | 70·7 | 22·1 | 251·7 |
| 3rd quarter | 320·6 | 46·1 | 20·8 | 42·8 | 29·5 | 74·5 | 28·4 | 24·8 | 21·6 | 32·1 | 62·1 | 23·0 | 235·5 |
| 4th quarter | 318·4 | 46·8 | 21·6 | 46·7 | 24·7 | 72·4 | 28·4 | 25·8 | 19·2 | 32·8 | 61·0 | 23·2 | 234·2 |
| 1968 1st quarter | 316·3 | 45·0 | 18·9 | 45·0 | 31·5 | 73·6 | 23·4 | 28·8 | 19·4 | 30·7 | 62·0 | 24·1 | 230·2 |
| 2nd quarter | 316·8 | 49·7 | 20·9 | 48·5 | 24·5 | 70·2 | 24·1 | 26·4 | 17·8 | 34·7 | 68·2 | 22·0 | 226·6 |
| 3rd quarter | 337·0 | 53·9 | 20·9 | 47·7 | 22·3 | 78·6 | 29·5 | 31·3 | 19·2 | 33·6 | 75·0 | 23·7 | 238·3 |
| 4th quarter | 379·4 | 55·7 | 29·8 | 57·8 | 20·9 | 83·7 | 23·1 | 43·0 | 24·1 | 41·3 | 74·5 | 26·7 | 278·2 |
| 1969 1st quarter | 318·8 | 46·2 | 20·3 | 47·1 | 26·6 | 70·8 | 21·4 | 36·3 | 16·6 | 33·5 | 73·7 | 23·7 | 221·4 |
| 2nd quarter | 355·4 | 52·4 | 16·4 | 54·6 | 28·2 | 73·5 | 29·4 | 37·5 | 22·1 | 41·3 | 78·1 | 26·5 | 250·8 |
| 3rd quarter | 374·5 | 51·1 | 16·4 | 58·4 | 30·9 | 80·9 | 36·3 | 36·7 | 23·4 | 40·4 | 83·4 | 25·2 | 265·9 |
| 4th quarter | 379·5 | | | | | | | | | | 85·0 | 25·8 | 268·7 |

## Table 3. Fixed capital expenditure in the distributive and service industries (excluding shipping) at 1963 prices seasonally adjusted

£ million

| | Total | Analysis by industry group | | | Analysis by type of asset | | |
|---|---|---|---|---|---|---|---|
| | | Wholesale Distribution | Retail Distribution | Other industries | New building work | Vehicles | Plant and machinery |
| 1960 | 758 | 102 | 182 | 474 | 308 | 206 | 244 |
| 1961 | 852 | 107 | 203 | 542 | 355 | 220 | 277 |
| 1962 | 852 | 105 | 196 | 551 | 373 | 207 | 272 |
| 1963 | 936 | 115 | 212 | 609 | 385 | 239 | 312 |
| 1964 | 1,088 | 134 | 243 | 711 | 430 | 286 | 372 |
| 1965 | 1,107 | 133 | 226 | 748 | 432 | 289 | 386 |
| 1966 | 1,063 | 120 | 204 | 739 | 408 | 287 | 368 |
| 1967 | 1,095 | 139 | 197 | 759 | 419 | 285 | 391 |
| 1968 | 1,208 | 138 | 238 | 832 | 434 | 314 | 460 |
| 1969 | 1,280 | | | | 464 | 340 | 476 |
| 1963 1st quarter | 223 | 28 | 53 | 142 | 96 | 54 | 73 |
| 2nd quarter | 231 | 29 | 50 | 152 | 97 | 59 | 75 |
| 3rd quarter | 233 | 29 | 53 | 151 | 95 | 58 | 80 |
| 4th quarter | 249 | 29 | 56 | 164 | 97 | 68 | 84 |
| 1964 1st quarter | 260 | 31 | 58 | 171 | 99 | 70 | 91 |
| 2nd quarter | 263 | 32 | 63 | 168 | 104 | 68 | 91 |
| 3rd quarter | 282 | 33 | 62 | 187 | 114 | 75 | 93 |
| 4th quarter | 283 | 38 | 60 | 185 | 113 | 73 | 97 |
| 1965 1st quarter | 285 | 37 | 59 | 189 | 113 | 76 | 96 |
| 2nd quarter | 274 | 32 | 57 | 185 | 108 | 72 | 94 |
| 3rd quarter | 264 | 33 | 56 | 176 | 105 | 68 | 91 |
| 4th quarter | 284 | 31 | 54 | 198 | 106 | 73 | 105 |
| 1966 1st quarter | 265 | 29 | 52 | 184 | 104 | 70 | 91 |
| 2nd quarter | 267 | 31 | 50 | 186 | 102 | 73 | 92 |
| 3rd quarter | 267 | 31 | 51 | 185 | 102 | 73 | 92 |
| 4th quarter | 264 | 29 | 51 | 184 | 100 | 71 | 93 |
| 1967 1st quarter | 270 | 32 | 49 | 189 | 104 | 70 | 96 |
| 2nd quarter | 279 | 35 | 48 | 196 | 106 | 74 | 99 |
| 3rd quarter | 279 | 36 | 49 | 194 | 104 | 73 | 102 |
| 4th quarter | 267 | 36 | 51 | 180 | 105 | 68 | 94 |
| 1968 1st quarter | 301 | 37 | 57 | 207 | 108 | 80 | 113 |
| 2nd quarter | 298 | 32 | 60 | 206 | 111 | 75 | 112 |
| 3rd quarter | 299 | 33 | 61 | 205 | 109 | 78 | 112 |
| 4th quarter | 310 | 36 | 60 | 214 | 106 | 81 | 123 |
| 1969 1st quarter | 308 | 34 | 60 | 214 | 114 | 84 | 110 |
| 2nd quarter | 316 | 33 | 62 | 221 | 117 | 84 | 115 |
| 3rd quarter | 330 | 34 | 64 | 232 | 118 | 85 | 127 |
| 4th quarter | 326 | | | | 115 | 87 | 124 |

**Table 4. Industry's fixed capital expenditure at current prices**

£ million

| | Total | Manufacturing industry | Distributive and service industries (excluding shipping) | Shipping industry |
|---|---|---|---|---|
| 1960 | 1,901 | 1,021 | 718 | 162 |
| 1961 | 2,192 | 1,239 | 821 | 132 |
| 1962 | 2,119 | 1,168 | 844 | 107 |
| 1963 | 2,075 | 1,055 | 936 | 84 |
| 1964 | 2,446 | 1,216 | 1,107 | 123 |
| 1965 | 2,657 | 1,401 | 1,156 | 100 |
| 1966 | 2,742 | 1,504 | 1,139 | 99 |
| 1967 | 2,793 | 1,465 | 1,188 | 140 |
| 1968 | 3,166 | 1,565 | 1,354 | 247 |
| 1969 | 3,421 | 1,724 | 1,484 | 213 |
| 1963 1st quarter | 481 | 240 | 219 | 22 |
| 2nd quarter | 504 | 263 | 226 | 15 |
| 3rd quarter | 513 | 264 | 227 | 22 |
| 4th quarter | 577 | 288 | 264 | 25 |
| 1964 1st quarter | 551 | 268 | 260 | 23 |
| 2nd quarter | 584 | 295 | 264 | 25 |
| 3rd quarter | 613 | 303 | 277 | 33 |
| 4th quarter | 698 | 350 | 306 | 42 |
| 1965 1st quarter | 638 | 333 | 290 | 15 |
| 2nd quarter | 643 | 329 | 284 | 30 |
| 3rd quarter | 642 | 352 | 269 | 21 |
| 4th quarter | 735 | 387 | 313 | 35 |
| 1966 1st quarter | 662 | 357 | 284 | 21 |
| 2nd quarter | 661 | 357 | 282 | 22 |
| 3rd quarter | 677 | 378 | 273 | 26 |
| 4th quarter | 742 | 412 | 300 | 30 |
| 1967 1st quarter | 675 | 354 | 292 | 29 |
| 2nd quarter | 713 | 370 | 299 | 44 |
| 3rd quarter | 668 | 354 | 289 | 25 |
| 4th quarter | 737 | 387 | 308 | 42 |
| 1968 1st quarter | 716 | 342 | 333 | 41 |
| 2nd quarter | 728 | 355 | 330 | 43 |
| 3rdquarter | 770 | 388 | 323 | 59 |
| 4th quarter | 952 | 480 | 368 | 104 |
| 1969 1st quarter | 751 | 361 | 354 | 36 |
| 2nd quarter | 824 | 410 | 362 | 52 |
| 3rd quarter | 875 | 451 | 369 | 55 |
| 4th quarter | 971 | 502 | 399 | 70 |

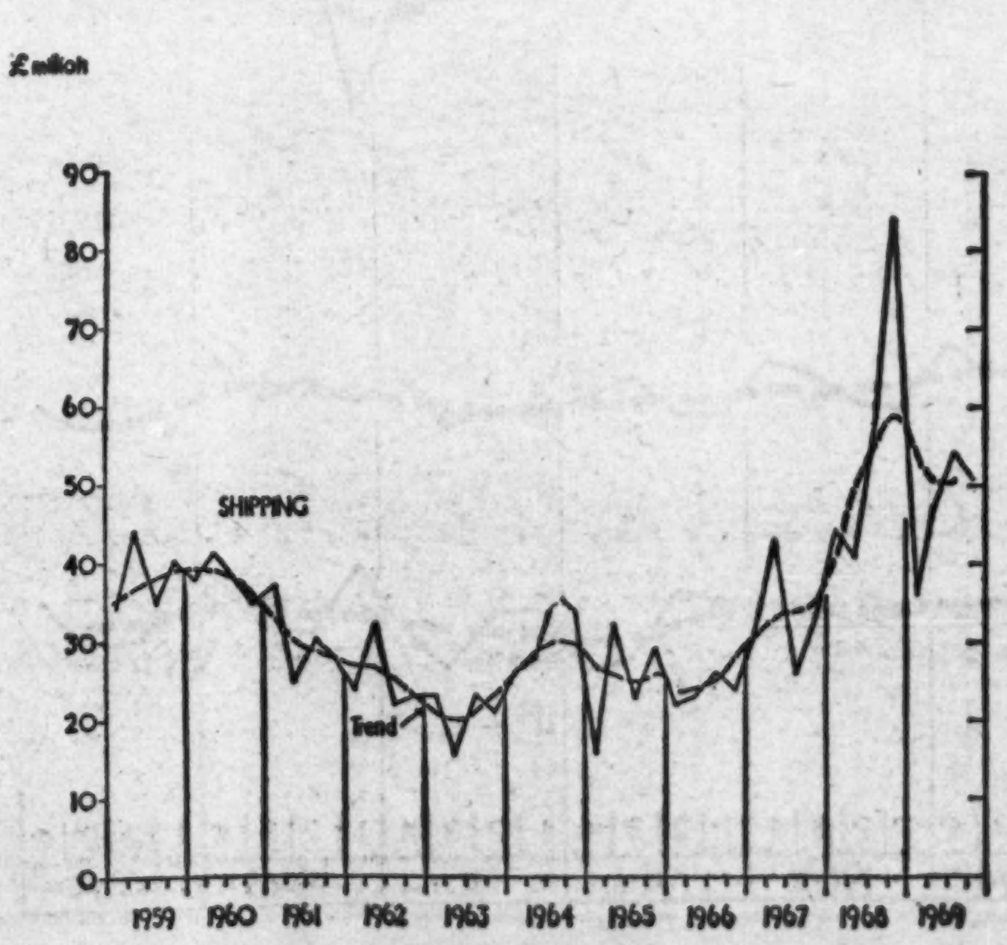
**Notes relating to Tables 1 to 4**

Capital expenditure comprises expenditure on vehicles (including ships) and plant and machinery less receipts from sales of these assets and on new building work.

The analysis by industry group follows the Standard Industrial Classification (1963 consolidated edition):

Manufacturing Orders III to XVI
Distributive Trades Order XX
Wholesale MLH 810, 831, 832
Retail MLH 820
Other Industries Order XVII (Construction); XIX (Transport and Communication) excluding 701 – Railways, 705 – Port and Inland Water Transport, 706 – Air Transport and 707 – Postal Services and Telecommunications; XXI (Insurance, Banking and Finance) excluding savings departments of the Post Office and Trustee Savings Banks; XXII (Professional and Scientific Services) excluding 872 Educational and 874–Medical and Dental Services; and XXIII (Miscellaneous Services).

The estimates are shown to the nearest £ million but should not be regarded as accurate to this degree, and care should be taken in using the industry figures in Tables 2 and 3 because of the margins of error involved in the quarterly seasonal adjustments.




## INDUSTRY'S CAPITAL EXPENDITURE, *continued*

mark inquiries at less frequent intervals.

Revisions have been made to the figures for 1968 to take account of the results of the 1968 Annual Inquiry into the Distributive and Service Trades. These results will be published in the *Board of Trade Journal* in due course. The figures for retail distribution have also been revised for 1966 and 1967 to take account of the results of the 1966 Census of Distribition and the results for retailers of the 1967 Annual Inquiry. In addition some minor revisions have been made to the figures for 1966 and 1967 for other service industries.

The revisions are small in 1966 and 1967 but more substantial in 1968, particularly in the case of retail distribution. An important part of the revision for retail distribution is explained by a marked increase revealed by the Annual Inquiry in investment in one kind of business for which the quarterly sample was not fully representative. The revisions to 1968 have had consequential effects on the estimates for 1969 as these are calculated by linking to the figures for the previous year.

The estimates of capital expenditure by the shipping industry in 1968 have been revised in the light of additional information received, and the figures for manufacturing industry for the third quarter of 1969 have been revised slightly to take account of returns received too late for inclusion in the estimates published on January 21.

Revised estimates of industry's capital expenditure in the fourth quarter of 1969, taking account of late returns, will be published in the *Board of Trade Journal* next month.

### LETTERS TO THE EDITOR

*Editorial communications should be addressed to the Editor,* Board of Trade Journal, *Room* 437, *Board of Trade,* 1 *Victoria Street, London, S.W.*1 (*Tel.* 01-222 7877, *Ext.* 2653/6) *and not to HMSO,*

# Retailers stocks in January

THE VALUE of stocks held by retailers at the end of January showed an increase of 7 per cent compared with January 1969, the same increase as that recorded in the previous month which was the smallest since June 1968.

In volume terms retailers' stocks were 2 per cent higher than in the corresponding month last year, much in line with the trend recorded in recent months.

**Estimate of levels and percentage increases in retailers stocks**

Index numbers (end 1960 = 100) *and Percentage increase on a year earlier*
(At cost at end of month)

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| At current prices | | | | | | | | | | | | |
| 1960 | 94 | 99 | 102 | 103 | 105 | 104 | 99 | 98 | 102 | 109 | 113 | 100 |
| 1961 | 98 | 102 | 107 | 109 | 110 | 111 | 108 | 107 | 110 | 117 | 122 | 106 |
| 1962 | 103 | 106 | 112 | 113 | 116 | 112 | 110 | 110 | 112 | 121 | 127 | 111 |
| 1963 | 106 | 109 | 116 | 117 | 119 | 116 | 113 | 113 | 114 | 125 | 134 | 117 |
| 1964 | 115 | 117 | 123 | 125 | 125 | 124 | 118 | 122 | 125 | 133 | 143 | 126 |
| 1965 | 121 | 124 | 133 | 134 | 136 | 133 | 128 | 132 | 133 | 141 | 151 | 133 |
| 1966 | 128 | 131 | 141 | 140 | 144 | 143 | 135 | 141 | 141 | 150 | 160 | 137 |
| 1967 | 133 | 136 | 144 | 145 | 148 | 145 | 137 | 142 | 140 | 150 | 159 | 139 |
| 1968 | 136 | 139 | 151 | 152 | 156 | 154 | 148 | 154 | 153 | 164 | 176 | 157 |
| 1969 | 151 | 155 | 168 | 166 | 170 | 168 | 162 | 168 | 167 | 179 | 192 | 169 |
| 1970 | 161 | | | | | | | | | | | |
| *1968* | *2* | *2* | *5* | *5* | *6* | *6* | *8* | *8* | *9* | *10* | *11* | *13* |
| *1969* | *11* | *12* | *11* | *10* | *9* | *10* | *10* | *9* | *9* | *9* | *9* | *7* |
| *1970* | *7* | | | | | | | | | | | |
| At constant (Dec. 1960) prices | | | | | | | | | | | | |
| 1960 | 95 | 100 | 103 | 105 | 106 | 105 | 100 | 99 | 102 | 109 | 113 | 100 |
| 1961 | 98 | 102 | 106 | 107 | 109 | 109 | 106 | 104 | 107 | 113 | 118 | 103 |
| 1962 | 100 | 102 | 108 | 109 | 110 | 107 | 105 | 104 | 106 | 114 | 120 | 104 |
| 1963 | 100 | 103 | 110 | 110 | 112 | 110 | 107 | 106 | 108 | 118 | 126 | 110 |
| 1964 | 108 | 109 | 114 | 116 | 115 | 114 | 109 | 113 | 115 | 122 | 130 | 115 |
| 1965 | 110 | 112 | 121 | 121 | 122 | 119 | 115 | 119 | 119 | 126 | 135 | 119 |
| 1966 | 115 | 117 | 126 | 124 | 128 | 127 | 119 | 123 | 124 | 131 | 140 | 120 |
| 1967 | 116 | 118 | 125 | 126 | 128 | 126 | 119 | 124 | 122 | 130 | 138 | 121 |
| 1968 | 118 | 120 | 130 | 128 | 132 | 129 | 123 | 128 | 128 | 136 | 146 | 130 |
| 1969 | 124 | 127 | 136 | 134 | 138 | 135 | 130 | 134 | 133 | 142 | 152 | 133 |
| 1970 | 124 | | | | | | | | | | | |
| *1968* | *1* | *1* | *4* | *2* | *3* | *2* | *4* | *4* | *5* | *5* | *6* | *8* |
| *1969* | *5* | *6* | *5* | *5* | *4* | *5* | *5* | *5* | *4* | *4* | *4* | *3* |
| *1970* | *2* | | | | | | | | | | | |

Retailers' stocks in United Kingdom at end of December 1960 were £993 million at current prices.

# Industry's stocks in the fourth quarter of 1969

*Sources: Manufacturing Industry – Ministry of Technology*
*Distributive trades – Board of Trade*

THERE WAS a strong rise in the volume of industry's stocks in the last quarter of 1969, which more than offset the fall in the third quarter. The increase shown by the provisional estimates is £131 million, at 1963 prices seasonally adjusted. Most of the increase was in manufacturers' stocks, but there was a substantial rise in those held by reailers, and stocks held by wholesalers also increased. This was the first quarter in which stocks held by all three sectors have risen since the end of 1968.

**Manufacturing industry**

Stocks of all three types of asset contributed to the overall fourth quarter increase but the largest rise (of £58 million) was in holdings of finished goods. The remaining increase of £37 million was almost equally divided between stocks of materials and fuel and work in progress.

There was a fairly substantial amount of stockbuilding by manufacturers during 1969 as a whole, but the ratio of stocks to production has been lower than in any recent year – in part this may represent a long term downward trend. Again stocks of all

**Value of physical increase of industry's stocks at 1963 prices seasonally adjusted**

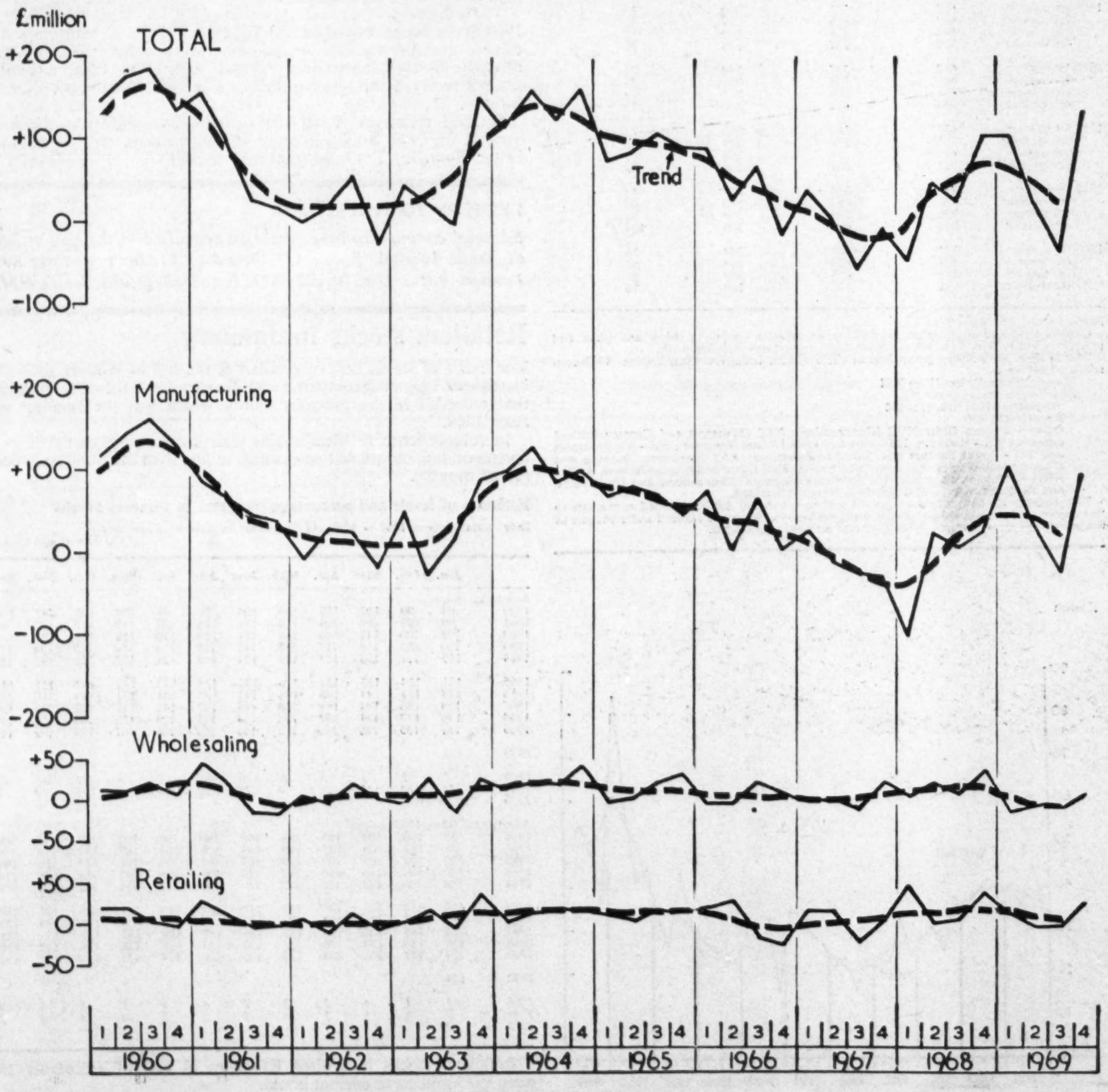


**Table 1. Value of physical increase of industry's stocks at 1963 prices seasonally adjusted**

£ million

| | Total | Manufacturing | Wholesaling | Retailing |
|---|---|---|---|---|
| Level of stocks at end 1968 | 9,546 | 6,954 | 1,234 | 1,359 |
| 1960 | 636 | 547 | 50 | 39 |
| 1961 | 299 | 231 | 38 | 30 |
| 1962 | 63 | 26 | 22 | 15 |
| 1963 | 211 | 123 | 31 | 57 |
| 1964 | 552 | 411 | 91 | 50 |
| 1965 | 356 | 262 | 49 | 45 |
| 1966 | 172 | 147 | 19 | 6 |
| 1967 | -17 | - 39 | 10 | 11 |
| 1968 | 129 | - 47 | 81 | 95 |
| 1969 | 222 | 206 | - 21 | 37 |
| 1963 1st quarter | 44 | 46 | - 5 | 3 |
| 2nd quarter | 20 | - 25 | 27 | 18 |
| 3rd quarter | - 2 | 15 | - 16 | - 1 |
| 4th quarter | 149 | 87 | 25 | 37 |
| 1964 1st quarter | 112 | 99 | 11 | 2 |
| 2nd quarter | 159 | 127 | 21 | 11 |
| 3rd quarter | 123 | 85 | 19 | 19 |
| 4th quarter | 158 | 100 | 41 | 18 |
| 1965 1st quarter | 75 | 68 | - 3 | 10 |
| 2nd quarter | 84 | 79 | 1 | 4 |
| 3rd quarter | 106 | 69 | 20 | 17 |
| 4th quarter | 90 | 46 | 31 | 14 |
| 1966 1st quarter | 88 | 73 | - 5 | 20 |
| 2nd quarter | 28 | 4 | - 4 | 28 |
| 3rd quarter | 69 | 66 | 21 | - 17 |
| 4th quarter | - 13 | 5 | 7 | - 25 |
| 1967 1st quarter | 39 | 26 | - 2 | 15 |
| 2nd quarter | 7 | - 10 | 1 | 15 |
| 3rd quarter | - 56 | - 25 | - 10 | - 21 |
| 4th quarter | - 7 | - 30 | 22 | 2 |
| 1968 1st quarter | - 43 | -100 | 8 | 49 |
| 2nd quarter | 47 | 24 | 23 | 1 |
| 3rd quarter | 24 | 7 | 12 | 5 |
| 4th quarter | 102 | 23 | 39 | 40 |
| 1969 1st quarter | 102 | 103 | - 14 | 13 |
| 2nd quarter | 23 | 32 | - 6 | - 3 |
| 3rd quarter | - 34 | - 24 | - 9 | - 1 |
| 4th quarter | 131 | 95 | 8 | 28 |

assets contributed to the overall increase with the largest rise occurring in holdings of finished goods. Stocks of materials and fuel have shown a consistent run of increases since the last quarter of 1968, broken only by the fall in the third quarter of 1969. Work in progress after falling, unusually, in 1968 recovered in 1969 though the increase over the year was not as high as in some previous years. Stockbuilding of finished goods throughout 1969 has followed the pattern of total stockbuilding with high increases in the first and fourth quarters and a smaller increase in the second only slightly offset by a fall in the third quarter; for the year as a whole there was a large rise.

**Distributive trades**

Stocks held by both wholesalers and retailers rose in volume during the last quarter of 1969. Wholesalers' stocks, which had fallen in each of the first three quarters, showed an increase of £8 million (at 1963 prices, seasonally adjusted) in the fourth quarter. During the year as a whole these stocks were reduced by £21 million at 1963 prices. This followed heavy stockbuilding in 1968, and the total reduction is very much less than the increase during that year.

Retailers' stocks increased by £28 million (at 1963 prices, seasonally adjusted) in the fourth quarter of 1969, after falling slightly in the second and third quarters. During 1969 as a whole there was an increase of £37 million. These stocks are very high by past standards in relation to sales.

**Revisions to previous figures**

The figures for wholesalers' stocks in 1968 and 1969 have been revised to take account of the results of the annual inquiry into the Distributive and Service Trades for 1968. These results will be published in the *Board of Trade Journal* in due course. Figures for the first three quarters of 1969 for manufacturers' stocks have been revised to take account of late returns not previously included. This has had a sizeable effect on the figures for the first quarter of 1969.

Revised fourth quarter estimates taking account of late returns will be published in early April.

**Table 2. Value of the physical increase in stocks held by manufacturing industry at 1963 prices seasonally adjusted**

£ million

| | | Analysis by industry group | | | | | | Analysis by type of asset | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | All manufacturing industries | Food, drink and tobacco | Chemicals and allied industries | Metal manufacture | Engineering, shipbuilding, vehicles and metal goods | Textiles leather and clothing | Other manufacturing industries | Materials and fuel | Work in progress | Finished goods |
| Level of stocks at end 1968 | 6,954 | 896 | 630 | 527 | 3,424 | 747 | 731 | 2,378 | 2,641 | 1,935 |
| 1960 | 547 | 45 | 41 | 83 | 288 | 30 | 61 | 230 | 146 | 171 |
| 1961 | 231 | 10 | 17 | 13 | 154 | 8 | 29 | 40 | 103 | 89 |
| 1962 | 26 | 23 | 3 | -18 | 41 | -19 | - 3 | -62 | 42 | 46 |
| 1963 | 123 | 44 | -11 | 2 | 75 | 2 | 12 | 2 | 100 | 21 |
| 1964 | 411 | 6 | 41 | 31 | 240 | 61 | 32 | 147 | 177 | 87 |
| 1965 | 262 | 1 | 25 | 26 | 171 | - 2 | 41 | 56 | 98 | 108 |
| 1966 | 147 | - 5 | 26 | -16 | 85 | 26 | 30 | -20 | 33 | 134 |
| 1967 | -39 | 20 | 3 | -27 | 10 | -33 | -12 | -38 | 33 | -34 |
| 1968 | -47 | - 2 | 44 | 31 | -155 | 10 | 25 | -12 | -46 | 11 |
| 1969 | 206 | | | | | | | 26 | 63 | 117 |
| 1963 1st quarter | 46 | 2 | 4 | 2 | 28 | -10 | 20 | -15 | 24 | 38 |
| 2nd quarter | 25 | 9 | 9 | - 2 | -13 | - 2 | - 9 | -15 | 11 | -21 |
| 3rd quarter | 15 | 9 | - 7 | - 1 | 8 | 8 | - 2 | 11 | 20 | -16 |
| 4th quarter | 87 | 24 | 1 | 3 | 51 | 5 | 3 | 21 | 46 | 20 |
| 1969 1st quarter | 99 | 11 | 12 | 9 | 48 | 17 | 2 | 60 | 31 | 8 |
| 2nd quarter | 127 | - 1 | 8 | 16 | 76 | 20 | 9 | 31 | 56 | 41 |
| 3rd quarter | 85 | - 7 | 10 | 1 | 65 | 7 | 9 | 13 | 47 | 25 |
| 4th quarter | 100 | 3 | 12 | 4 | 51 | 17 | 13 | 43 | 43 | 13 |
| 1965 1st quarter | 68 | -13 | - 3 | 10 | 55 | 10 | 10 | 1 | 49 | 19 |
| 2nd quarter | 79 | 1 | 20 | — | 50 | - 4 | 12 | 30 | 7 | 42 |
| 3rd quarter | 69 | 16 | 3 | 7 | 37 | - 7 | 14 | 14 | 34 | 22 |
| 4th quarter | 46 | - 3 | 4 | 10 | 29 | - 1 | 6 | 11 | 9 | 26 |
| 1966 1st quarter | 73 | 5 | 11 | - 4 | 42 | 6 | 13 | 4 | 18 | 51 |
| 2nd quarter | 4 | 2 | 5 | -18 | 4 | 7 | 5 | -19 | 13 | 10 |
| 3rd quarter | 66 | -13 | 4 | 18 | 38 | 9 | 9 | 24 | 1 | 41 |
| 4th quarter | 5 | 1 | 6 | -11 | 1 | 5 | 3 | -28 | 1 | 32 |
| 1967 1st quarter | 26 | 1 | 5 | - 4 | 25 | - 6 | 5 | - 8 | 15 | 19 |
| 2nd quarter | -10 | 2 | -19 | - 7 | 26 | - 7 | - 5 | - 19 | 4 | 6 |
| 3rd quarter | -25 | 19 | 19 | -13 | -36 | - 4 | -11 | - 4 | 3 | -24 |
| 4th quarter | -30 | - 2 | - 3 | - 4 | - 5 | -17 | — | - 7 | 11 | -34 |
| 1968 1st quarter | -100 | 9 | -11 | - 1 | -81 | - 7 | - 9 | - 9 | -32 | -59 |
| 2nd quarter | 24 | - 3 | 25 | 9 | -27 | 8 | 12 | - 2 | — | 25 |
| 3rd quarter | 7 | -13 | 14 | 7 | - 7 | 2 | 5 | -13 | 7 | 13 |
| 4th quarter | 23 | 5 | 17 | 16 | -40 | 8 | 18 | 12 | - 21 | 32 |
| 1969 1st quarter | 103 | 11 | 10 | - 7 | 59 | 21 | 8 | 17 | 23 | 63 |
| 2nd quarter | 32 | -10 | 8 | - 3 | 33 | - 2 | 6 | 19 | — | 13 |
| 3rd quarter | - 24 | 17 | -10 | -22 | -17 | 9 | - 1 | -30 | 22 | -17 |
| 4th quarter | 95 | | | | | | | 19 | 18 | 58 |

**Table 3. Value of the physical increase of stocks held by wholesalers at 1963 prices seasonally adjusted**

£ million

| | Total wholesalers | General wholesale distributors | Dealers in coal builders' materials, etc. | Dealers in industrial materials and machinery |
|---|---|---|---|---|
| Level of stocks at end 1968 | 1,234 | 784 | 119 | 331 |
| 1960 | 50 | 27 | 4 | 19 |
| 1961 | 38 | 27 | — | 11 |
| 1962 | 22 | 4 | 4 | 15 |
| 1963 | 31 | 14 | 5 | 11 |
| 1964 | 91 | 47 | 13 | 30 |
| 1965 | 49 | 23 | 5 | 21 |
| 1966 | 19 | 13 | — | 7 |
| 1967 | 10 | 5 | — | 5 |
| 1968 | 81 | 54 | 3 | 24 |
| 1969 | -21 | | | |
| 1963 1st quarter | - 5 | - 5 | 3 | - 3 |
| 2nd quarter | 27 | 17 | 3 | 8 |
| 3rd quarter | -16 | -17 | - 4 | 5 |
| 4th quarter | 25 | 19 | 4 | 2 |
| 1964 1st quarter | 11 | — | 5 | 6 |
| 2nd quarter | 21 | 10 | 1 | 10 |
| 3rd quarter | 19 | 4 | 7 | 7 |
| 4th quarter | 41 | 33 | — | 7 |
| 1965 1st quarter | - 3 | - 9 | 1 | 6 |
| 2nd quarter | 1 | — | - 2 | 3 |
| 3rd quarter | 20 | 13 | 2 | 5 |
| 4th quarter | 31 | 19 | 5 | 7 |
| 1966 1st quarter | - 5 | - 6 | 4 | - 2 |
| 2nd quarter | - 3 | - 2 | - 1 | - 1 |
| 3rd quarter | 21 | 19 | - 3 | 5 |
| 4th quarter | 7 | 2 | — | 6 |
| 1967 1st quarter | - 2 | -14 | 3 | 9 |
| 2nd quarter | 1 | 8 | - 6 | - 1 |
| 3rd quarter | -10 | - 7 | 2 | - 6 |
| 4th quarter | 22 | 18 | 1 | 2 |
| 1968 1st quarter | 8 | 9 | 3 | - 5 |
| 2nd quarter | 23 | 12 | 2 | 9 |
| 3rd quarter | 12 | 13 | - 2 | — |
| 4th quarter | 39 | 20 | — | 19 |
| 1969 1st quarter | -14 | -22 | 3 | 6 |
| 2nd quarter | - 6 | -12 | - 3 | 9 |
| 3rd quarter | - 9 | - 3 | 1 | - 7 |
| 4th quarter | 8 | | | |

**Table 4. Increase in the book value of industry's stocks**

£ million

| | Total | Manufacturing | Wholesaling | Retailing |
|---|---|---|---|---|
| Level of stocks at end 1968 | 11,212 | 8,165 | 1,485 | 1,562 |
| 1960 | 690 | 591 | 56 | 44 |
| 1961 | 416 | 312 | 43 | 61 |
| 1962 | 155 | 78 | 32 | 45 |
| 1963 | 360 | 250 | 48 | 63 |
| 1964 | 815 | 593 | 133 | 90 |
| 1965 | 628 | 489 | 74 | 66 |
| 1966 | 458 | 365 | 48 | 44 |
| 1967 | 137 | 69 | 47 | 21 |
| 1968 | 690 | 371 | 140 | 179 |
| 1969 | 943 | 779 | 46 | 118 |
| 1963 1st quarter | 119 | 69 | - 6 | 56 |
| 2nd quarter | 20 | 4 | 23 | - 6 |
| 3rd quarter | 27 | 16 | 23 | -13 |
| 4th quarter | 195 | 161 | 8 | 26 |
| 1964 1st quarter | 208 | 138 | 15 | 55 |
| 2nd quarter | 230 | 185 | 32 | 13 |
| 3rd quarter | 187 | 116 | 65 | 7 |
| 4th quarter | 191 | 154 | 21 | 15 |
| 1965 1st quarter | 195 | 124 | 2 | 69 |
| 2nd quarter | 162 | 153 | 14 | - 5 |
| 3rd quarter | 172 | 108 | 62 | - 2 |
| 4th quarter | 99 | 104 | - 4 | — |
| 1966 1st quarter | 250 | 162 | 7 | 81 |
| 2nd quarter | 173 | 138 | 10 | 25 |
| 3rd quarter | +97 | 69 | 51 | -23 |
| 4th quarter | -62 | - 4 | -20 | -39 |
| 1967 1st quarter | 36 | -14 | -16 | 66 |
| 2nd quarter | 26 | 18 | 1 | 7 |
| 3rd quarter | 6 | 18 | 29 | -41 |
| 4th quarter | 70 | 48 | 33 | -11 |
| 1968 1st quarter | 148 | 10 | 24 | 114 |
| 2nd quarter | 209 | 150 | 30 | 29 |
| 3rd quarter | 164 | 115 | 56 | - 7 |
| 4th quarter | 169 | 96 | 30 | 43 |
| 1969 1st quarter | 329 | 222 | 3 | 104 |
| 2nd quarter | 214 | 202 | 7 | 6 |
| 3rd quarter | 175 | 143 | 49 | -17 |
| 4th quarter | 225 | 212 | -12 | 25 |

**Notes relating to Tables 1 to 4:**

The analysis by industry group follows the Standard Industrial Classification (1963 consolidated edition.)

Manufacturing Orders III to XVI.

Distributive Trades Order XX.

Wholesale M.L.H. 810, 831, 832.

Retail M.L.H. 820

The estimates are shown to the nearest £ million but should not be regarded as accurate to this degree, and care should be taken in using the industry figures in Tables 2 and 3 because of the margins of error in the quarterly seasonal adjustments.

# Registrations of British and foreign films

The following are details of films registered by the Board of Trade under the Films Acts 1960 to 1966 during the week ended Friday, March 13, 1970.
Br/E indicates that the film is a British quota film.

| Title of Film | Registered No. | Playing Time Minutes | Date of Registration | Registered in the name of | Maker's name |
|---|---|---|---|---|---|
| | | | | BRITISH | |
| My Lover, My Son | Br/E 34722 | 95 | March 11 | Metro-Goldwyn-Mayer Pictures Ltd. | Metro-Goldwyn-Mayer British Studios Ltd. |
| Kes | Br/E 34723 | 112 | March 11 | United Artists Corporation Ltd. | Kestrel Films Ltd. and Woodfall Films Ltd. |
| My Side of the Mountain | Br/E 34724 | 100 | March 12 | Paramount Pictures (UK) Ltd. | Paramount Pictures (UK) Ltd. |
| Movietone News 2127 | Br/E 34653 | 8 | March 13 | Twentieth Century-Fox Film Co. Ltd. | British Movietonews Ltd. |
| Movietone News 2127A | Br/E 34654 | 7 | March 13 | " " | " " |
| | | | | FOREIGN | |
| Johnny Cash, The Man, His World, His Music | F 34714 | 93 | March 10 | Crispin Film Distributors Ltd. | Verite Productions. |
| . . . tick. . . tick. . . tick. . . | F 34715 | 97 | March 10 | Metro-Goldwyn-Mayer Pictures Ltd. | Metro-Goldwyn-Mayer Inc. |
| Carmen, Baby | F 34716 | 82 | March 10 | Gala Film Distributors Ltd. | Spear Productions Inc. |
| The Girls | F 34717 | 100 | March 10 | Contemporary Films Ltd. | Sandrew Film and Teater AB, Stockholm. |
| The Delinquent (Tatowierung) | F 34718 | 84 | March 10 | Cinecenta Film Distributors Ltd. | Rob Houwer Film Production, Munich. |
| Slaves | F 34719 | 105 | March 10 | Warner-Pathe Distributors Ltd. | Theatre Guild Films Inc. |
| Life, Love, Death (La Vie, L'Amour La Mort) | F 34720 | 115 | March 10 | United Artists Corporation Ltd. | Les Films Ariane, Paris, Les Productions Artistes Associes, Paris and P.E.A. Produzioni Europee Associate, Rome. |
| Some Kind of a Nut | F 34721 | 89 | March 10 | " " | Mirisch Productions Inc. |

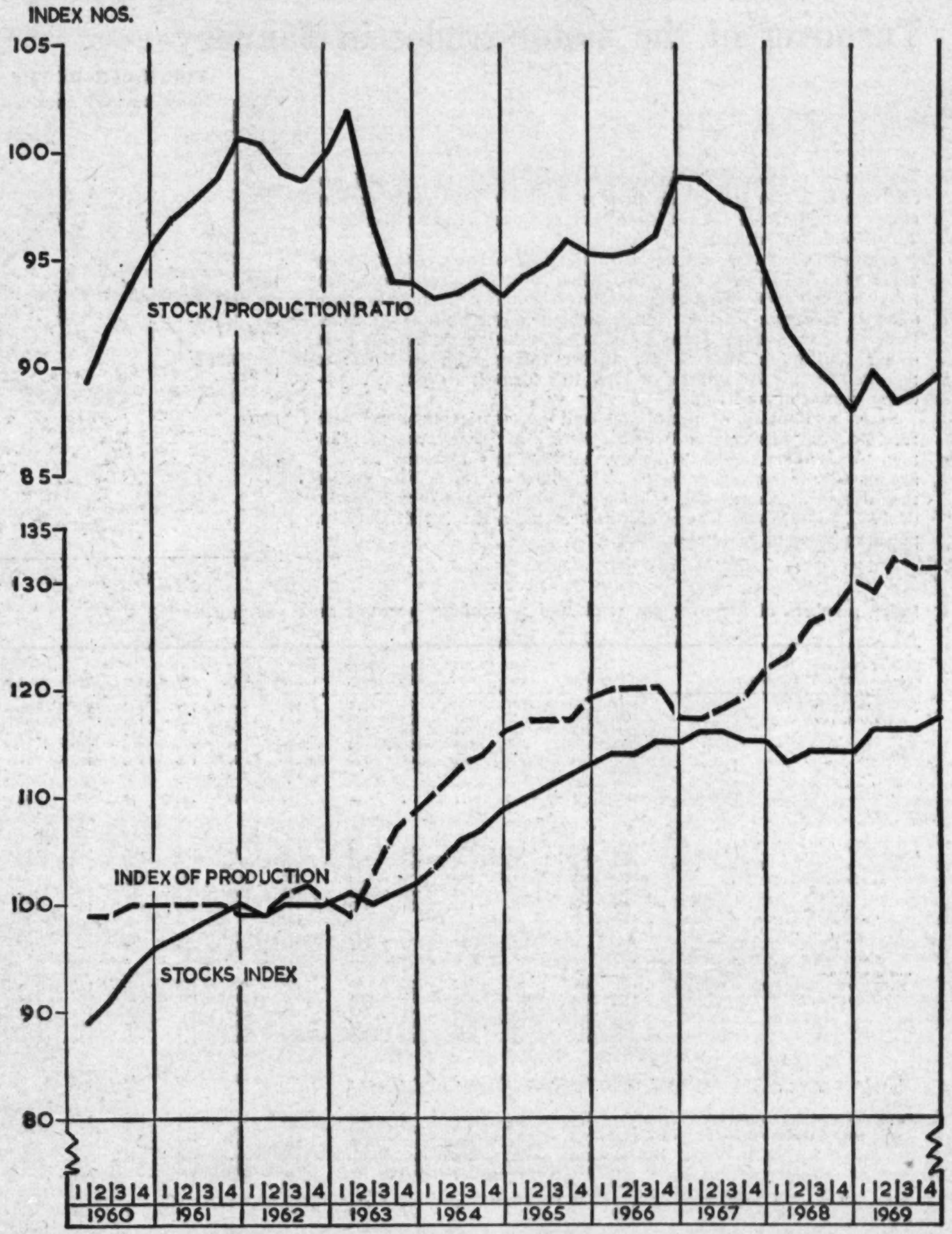
**AMENDMENT TO THE REGISTER**

The playing time of the film 'Marooned' (F 34614) registered on February 9, 1970, has been amended to 128 minutes.

**Table 5. The relationship of manufacturers' stocks to manufacturing production**

| | | Index numbers – 4th quarter – 1962 = 100 seasonally adjusted | | |
|---|---|---|---|---|
| | | Stock levels (at 1963 prices) | Production (with 1963 net output weight) | Ratio of Stocks to Production |
| 1960 Q | 1 | 89 | 99 | 89·4 |
| | 2 | 91 | 99 | 91·5 |
| | 3 | 94 | 100 | 93·8 |
| | 4 | 96 | 100 | 95·6 |
| 1961 Q | 1 | 97 | 100 | 97·0 |
| | 2 | 98 | 100 | 97·8 |
| | 3 | 99 | 100 | 98·9 |
| | 4 | 100 | 99 | 100·7 |
| 1962 Q | 1 | 99 | 99 | 100·4 |
| | 4 | 100 | 101 | 99·2 |
| | 3 | 100 | 102 | 98·7 |
| | 4 | 100 | 100 | 100·0 |
| 1963 Q | 1 | 101 | 99 | 102·0 |
| | 2 | 100 | 103 | 97·1 |
| | 3 | 101 | 107 | 94·0 |
| | 4 | 102 | 109 | 93·9 |
| 1964 Q | 1 | 104 | 111 | 93·2 |
| | 2 | 106 | 113 | 93·5 |
| | 3 | 107 | 114 | 94·1 |
| | 4 | 109 | 116 | 93·4 |
| 1965 Q | 1 | 110 | 117 | 94·3 |
| | 2 | 111 | 117 | 94·7 |
| | 3 | 112 | 117 | 95·9 |
| | 4 | 113 | 119 | 95·2 |
| 1966 Q | 1 | 114 | 120 | 95·1 |
| | 2 | 114 | 120 | 95·4 |
| | 3 | 115 | 120 | 96·1 |
| | 4 | 115 | 117 | 98·9 |
| 1967 Q | 1 | 116 | 117 | 98·8 |
| | 2 | 116 | 118 | 97·9 |
| | 3 | 115 | 119 | 97·3 |
| | 4 | 115 | 122 | 94·5 |
| 1968 Q | 1 | 113 | 123 | 91·8 |
| | 2 | 114 | 126 | 90·2 |
| | 3 | 114 | 127 | 89·3 |
| | 4 | 114 | 130 | 88·0 |
| 1969 Q | 1 | 116 | 129 | 89·6 |
| | 2 | 116 | 132 | 88·3 |
| | 3 | 116 | 131 | 88·7 |
| | 4 | 117 | 131 | 89·5 |

**Notes**
(1) The index numbers of the level of stocks relate to the end of each quarter; the index of production refers to production during the quarter.
(2) The 1963 index of production has been rebased on the fourth quarter of 1962 for the purposes of this table. Estimates for the years preceding 1962 are based on the previous 1958 based index.
(3) The index numbers of the stocks production ratios are calculated from unrounded estimates of the data in the previous two columns.





# Time Rates of Wages and Hours of Work

A volume of tables giving particulars of the minimum, or standard, time rates of wages for the more important industries and occupations, and of the normal weekly hours for which these rates are payable. The details given relate to the position as at 1st April, 1969, but any later changes known to have come into operation are shown. 37*s.* 6*d.* (*by post* 39*s.*)

*Government publications can be purchased from the Government Bookshop in London (post orders to P.O. Box 569, S.E.1), Edinburgh, Cardiff, Belfast, Manchester, Birmingham and Bristol, or through any bookseller.*

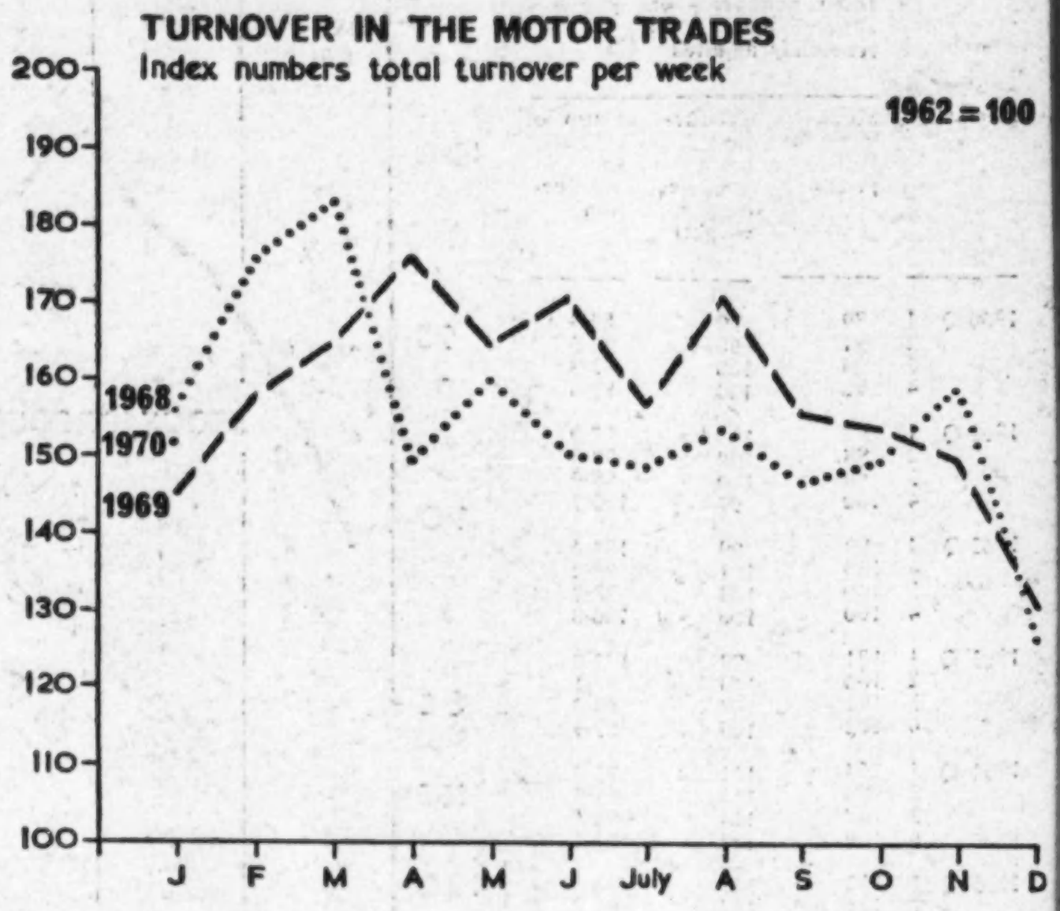
HMSO

# Turnover of the motor trades in January

THE TOTAL TURNOVER of the motor trades in January was 5 per cent more, at current prices, than in January 1969. This reflects higher receipts from sales of both new and used vehicles and from 'other' sales and receipts.

Sales of new motor vehicles in January were 3 per cent more by value than in January last year, when sales of cars had fallen following the 1968 'November measures', but if price increases are allowed for there was not much change in the volume of sales. Receipts from sales of secondhand vehicles during the month were 4 per cent more than a year earlier; taken with the increase recorded for the last quarter of 1969, this suggests a slight strengthening in sales of used vehicles.

Sales in January of petrol, oil and accessories together with receipts from servicing and repairs were 7 per cent more in value than in January, 1969. Roughly half of this increase can be accounted for by higher prices. The increases on a year earlier recorded in December and January are smaller than in the middle of 1969, as turnover a year ago now includes the higher duty on petrol imposed in November, 1968.




**Index numbers of turnover per week and percentage increases on a year earlier (†)**

1962 = 100

| Kind of business (Turnover in 1962 £ million) | | Year | 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | Jan. | Feb. | Mar.* | Apr. | May | June* | July | Aug. | Sept.* | Oct. | Nov. | Dec.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total turnover | 1965 | 130 | 141 | 140 | 125 | 114 | 124 | 144 | 153 | 147 | 136 | 136 | 140 | 116 | 119 | 120 | 119 | 105 |
| (£2,979 million) | 1966 | 133 | 146 | 157 | 125 | 106 | 133 | 144 | 158 | 173 | 150 | 149 | 151 | 116 | 112 | 108 | 111 | 99 |
| | 1967 | 143 | 137 | 152 | 144 | 137 | 132 | 141 | 138 | 151 | 147 | 156 | 153 | 142 | 140 | 144 | 149 | 123 |
| | 1968 | 155 | 172 | 154 | 150 | 144 | 156 | 176 | 183 | 150 | 160 | 151 | 149 | 154 | 147 | 150 | 159 | 127 |
| | 1969 | 158 | 157 | 171 | 161 | 144 | 145 | 158 | 165 | 176 | 165 | 171 | 157 | 171 | 156 | 154 | 150 | 131 |
| | 1970 | | | | | | 152 | | | | | | | | | | | |
| | *1969* | *2* | *- 9* | *11* | *7* | — | *- 7* | *-10* | *-10* | *17* | *3* | *- 13* | *5* | *11* | *0* | *3* | *- 5* | *3* |
| | *1970* | | | | | | *5* | | | | | | | | | | | |
| Analysis of turnover: | 1965 | 138 | 172 | 151 | 122 | 109 | 144 | 176 | 192 | 165 | 142 | 147 | 149 | 105 | 113 | 116 | 117 | 96 |
| Sales of new motor vehicles | 1966 | 136 | 173 | 178 | 112 | 80 | 155 | 166 | 192 | 227 | 160 | 154 | 163 | 92 | 87 | 82 | 88 | 72 |
| (£1,119 million) | 1967 | 145 | 145 | 159 | 139 | 138 | 139 | 150 | 145 | 161 | 156 | 161 | 151 | 136 | 133 | 143 | 156 | 120 |
| | 1968 | 158 | 204 | 148 | 140 | 141 | 185 | 209 | 214 | 136 | 165 | 144 | 130 | 149 | 141 | 149 | 172 | 111 |
| | 1969 | 152 | 162 | 172 | 151 | 125 | 141 | 167 | 174 | 190 | 165 | 164 | 135 | 173 | 146 | 139 | 131 | 109 |
| | 1970 | | | | | | 145 | | | | | | | | | | | |
| | *1969* | *- 4* | *-21* | *17* | *8* | *-12* | *-24* | *-20* | *-19* | *35* | — | *14* | *3* | *16* | *3* | *- 7* | *-24* | *- 2* |
| | *1970* | | | | | | *3* | | | | | | | | | | | |
| Sales of secondhand motor vehicles | 1965 | 119 | 132 | 142 | 110 | 93 | 107 | 138 | 148 | 162 | 142 | 126 | 127 | 104 | 102 | 105 | 98 | 79 |
| (£568 million) | 1966 | 119 | 135 | 153 | 103 | 85 | 111 | 138 | 151 | 158 | 154 | 148 | 129 | 94 | 91 | 89 | 92 | 76 |
| | 1967 | 133 | 124 | 150 | 141 | 117 | 105 | 134 | 133 | 148 | 143 | 158 | 148 | 138 | 139 | 135 | 135 | 89 |
| | 1968 | 137 | 158 | 142 | 135 | 112 | 125 | 174 | 173 | 142 | 149 | 137 | 139 | 139 | 129 | 127 | 126 | 90 |
| | 1969 | 133 | 135 | 150 | 132 | 115 | 119 | 139 | 147 | 157 | 144 | 148 | 127 | 145 | 126 | 127 | 128 | 95 |
| | 1970 | | | | | | 123 | | | | | | | | | | | |
| | *1969* | *- 3* | *-15* | *5* | *- 2* | *2* | *- 5* | *-20* | *-15* | *10* | *- 3* | *9* | *- 8* | *4* | *- 2* | — | *2* | *5* |
| | *1970* | | | | | | *4* | | | | | | | | | | | |
| All other sales and receipts | 1965 | 127 | 118 | 129 | 133 | 128 | 115 | 119 | 121 | 126 | 129 | 131 | 137 | 130 | 132 | 131 | 131 | 124 |
| (£1,292 million) | 1966 | 138 | 128 | 140 | 146 | 137 | 124 | 126 | 132 | 133 | 141 | 146 | 151 | 146 | 143 | 139 | 140 | 133 |
| | 1967 | 144 | 136 | 146 | 150 | 146 | 138 | 137 | 134 | 144 | 141 | 151 | 156 | 149 | 145 | 148 | 149 | 141 |
| | 1968 | 160 | 151 | 164 | 165 | 160 | 144 | 147 | 160 | 165 | 161 | 164 | 171 | 166 | 159 | 162 | 161 | 157 |
| | 1969 | 174 | 162 | 179 | 182 | 174 | 160 | 158 | 166 | 173 | 174 | 188 | 189 | 181 | 177 | 180 | 176 | 167 |
| | 1970 | | | | | | 171 | | | | | | | | | | | |
| | *1969* | *9* | *7* | *9* | *11* | *8* | *11* | *7* | *4* | *4* | *8* | *14* | *11* | *9* | *11* | *11* | *9* | *6* |
| | *1970* | | | | | | *7* | | | | | | | | | | | |

(†) The periods consist of four weeks except those marked * which are five weeks.

## REPORTS FOR UNITED KINGDOM EXPORTERS ON FIRMS OVERSEAS

UNITED KINGDOM exporters may wish to know more about a firm abroad which has offered to do business with them. The Board of Trade keeps records about the standing activities and influence of many firms abroad, and will make inquiries about any particular firm not already on record. These are not credit reports (for which the inquiriers should apply to banks and other agencies) but they are useful in deciding the suitability of the overseas trade as a sales outlet. Requests for reports should be addressed to Export Services Branch, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4, or to the appropriate Regional office of the Board.

# Final results of the Census of Distribution 1966

**IN 1966 THERE WERE 504,000 shops in the retail trades in Great Britain, 73,000 fewer than five years earlier, but the total turnover of goods sold by these traders (at current prices) increased by 26 per cent to reach more than £11,000 million. Proportionately less of the total was spent in food shops in 1966 compared with 1961; the percentage share of which declined from about 46½ per cent to a little under 45 per cent. The share of the total sales accounted for by sales on instalment credit terms changed little between 1961 and 1966, but within this type of business, which amounted to £982 million in 1966, there was a marked increase in mail order selling. Among the 2½ million persons engaged in retail trade in 1966 the proportion working on a part-time basis was 33 per cent compared with 26 per cent in 1961 – a continuation of the increase between 1957 and 1961. These are some of the highlights of the report on the Census of Distribution and Other Services 1966 (Volume 1) published this week by HMSO (price 18s.).**

The Census of Distribution for 1966 was the fourth to have been taken in Great Britain and covered the retail and related service trades on a sample basis. It was the second sample census to have been taken: previously full censuses were taken in 1950 and 1961 and a sample census in 1957. The next census will be a full census for 1971, in line with the pattern of taking full censuses at about 10 year intervals, and a sample census between full censuses. Censuses of distribution serve to provide information needed by commerce and industry and by Government, central and local. They provide retailers with criteria against which to judge their own performance and market researchers with a picture of the market and its opportunities. They also provide the Government with benchmarks for important series like the index of retail sales and give a framework for later sample inquiries from which are derived the regular series of current monthly and quarterly statistics and consumers' expenditure estimates, on different groups of commodities. The results of censuses are widely used by local authorities, by those concerned with planning and by university and other researchers to throw light on local patterns of trade.

First results of the Census of Distribution for 1966 were published in the *Board of Trade Journal* on February 23, 1968. The provisional figures then published have since been revised where necessary in Volume I of the Report now published. This volume gives a full description of the nature of the census, its scope and coverage, areas and periods covered and the information obtained from retailers. It also includes notes on the classification of retailers by kind of business, the sampling scheme and the method of conducting the census. A second volume of results giving tables on transport costs and floor space data for retail trade together with tables on special forms of trading and sampling errors for some of the main estimates will be published later this year. This article describes the main tables of Volume I and gives extracts and summaries and illustrates some of the structural changes that have taken place in retail distribution.

The tables published in Volume I are grouped in three main sections:

a. The first section provides information for retail *establishments*. These are individual shops – single shop sand individual branches of multiple and other organization and retail co-operative societies (including retail branches of some non-retail organizations).

b. The second section presents information for retail *organizations* by classifying them into three groups viz co-operative societies, large multiple organizations with 10 or more branches and a residual category termed independent organizations.

c. The third relates to some service trades closely associated with retailing, i.e. hairdressing, boot and shoe repairing and laundering.

Data collected for *establishments* were mainly turnover and details of persons engaged. These are presented in Volume I in a series of tabulations which show the number of establishments in the 22 kinds of business distinguished, the total turnover in each kind of business and the number of persons engaged. The tabulations also include analyses in which establishments are classified by form of organization (co-operative, large multiple and independent) and by area on the basis of the 10 standard regions of Great Britain, as well as by size of turnover.

In addition to turnover and employment, information on floor space, to be published in Volume 2, was collected for establishments in central shopping areas covered by the sample. In the case of the independents floor space questions were asked on the main census form but in the case of the large multiples and co-operatives societies questions were limited to branches located in the selected areas and were therefore asked in a supplementary inquiry after the main forms listing the branches had been received.

Data collected for *organizations* were wages and salaries, trading purchases, value of stocks, capital expenditure (on land and building, vehicles and plant, machinery and other capital equipment), sales on hire purchase or instalment credit terms, book debts, an analysis of turnover by main classes of goods sold and goods vehicles operated. Information on transport costs, to be published in Volume 2, was collected from large organizations (multiples, co-operatives and large independents) on the main census form but from the smaller independents was collected in a supplementary inquiry.

Organization data are presented in Volume I of the report in tables which give the number of organizations, establishments, turnover, stockturn gross margin and instalment credit sales by form of organization for each of 24 kinds of business. Further tabulations give detailed analyses of capital expenditure, book debts, wages and salaries and persons engaged. An analysis of the sales of 31 commodity groups of each kind of business is provided and instalment credit sales are also analysed within kinds of business according to four groupings of commodities sold. The main organization data are also analysed within seven broad kinds of business for large enterprises; and for independent organizations stockturn and gross margin ratios are given by membership and non-membership of voluntary groups or chains, within selected kinds of business.

Hairdressers, shoe repairers and traders in the laundry group provided similar information; but organization data of their purchases, stocks and credit trade were omitted. Boot and shoe repairers and hairdressers data were collected on an establishment basis whereas laundry trades data were collected for organizations as a whole. The tables in Volume 1 give capital expenditure and a limited commodity analysis for each of these service trades as well as counts of establishments and persons engaged, turnover totals and a size analysis by amount of turnover. The laundries group distinguishes five kinds of business, two of them new for 1966 i.e. hirers of towels and other linen (£14.3 million turnover) and hirers of overalls and industrial clothing (£7.4 million turnover).

Tables 1 to 4 accompanying this article summarize some of these final published results for establishment data within seven broad kind of business groupings. Table 5 similarly summarizes data collected on an organization basis while Table 6 gives establishment or organization data for the service trades.

### Numbers of establishments and turnover

Table 1 shows the trends over the years covered by the four censuses in respect of numbers of establishments and turnover. Table A shows how turnover per establishment for retail trade as a whole and for the three types of organizations developed between 1957 and 1966.

**Table A.**

£

| | Turnover per establishment | | |
|---|---|---|---|
| | 1957 (†) | 1961 (†) | 1966 |
| Total retail trade | 13,755 | 16,279 | 22,069 |
| Co-operative Societies | 31,259 | 32,635 | 38,073 |
| Large Multiples | 31,872 | 38,664 | 51,959 |
| Independents | 10,305 | 11,856 | 15,546 |

(†) Adjusted for exclusion of certain market traders and mobile shops in 1966.

When figures for 1969 are compared with those for 1961 in Table 1 it should be noted that in 1966 the coverage of market traders was limited to those who occupied fixed lockable premises in markets; mobile shops were included only if operated by co-operative societies and large multiple organizations or from fixed

(*Continued on next page*)

CENSUS OF DISTRIBUTION, 1966, *continued*

shop premises. Table 2 gives the percentage change between censuses after adjustments have been made to 1961 figures to take account of these differences in coverage.

Against the overall trend of a 7 per cent decline in the total number of shops between 1961 and 1966 the branches of large multiple show a rise over this period of 11.7 per cent. Moreover, as Table 1 shows, the increase in turnover per shop was highest in the case of the large multiples at 34 per cent compared with a rise of 31 per cent for independent shops and only 17 per cent for co-operative shops. Within different kinds of business, for all forms of organization, growth in turnover per shop of grocers and provision dealers increased by 47 per cent. The rise of 45 per cent in the confectioner, tobacconists, newsagents group owes much to the tax increases on tobacco (tobacco sales for organizations so classified amounts to more than 55 per cent of their turnover). The highest increase, of 48 per cent between 1961 and 1966, was recorded in turnover per establishment in the general stores group.

**Persons engaged**

Table 3 presents the 1966 figures for establishments and turnover by form of organization and also shows the number of persons engaged. In Table 4 the hours worked by each person engaged in retailing are broadly taken into account by distinguishing between full-time and part-time workers and the total numbers engaged are expressed on a full-time equivalent basis for each of the last three census years. Although the actual number of persons engaged rose between 1961 and 1966 there was a decrease of about 21,000 full-time equivalent workers over this period; this is after deducting some 35,000 from the 1961 figures to make them comparable with 1966 for market trader coverage. This reflects the increasing proportion of the labour force in retailing working on a part-time basis brought out in Table B.

## Table 1. Establishments and Turnover by Form of Organization and Kind of Business (Broad), 1950, 1957, 1961, 1966

| Form of Organization and Kind of Business | Establishments | | | | Turnover | | | |
|---|---|---|---|---|---|---|---|---|
| | 1950 | 1957 | 1961 | 1966 | 1950 | 1957 | 1961 | 1966 |
| | Number | Number | Number | Number | £ thous. | £ thous. | £ thous. | £ thous. |
| TOTAL RETAIL TRADE | 583,132 | 577,405 | 577,307 | 504,412 | 5,000,130 | 7,587,154 | 8,918,860 | 11,131,816 |
| Co-operative societies | 25,544 | 28,945 | 29,396 | 26,684 | 571,488 | 904,796 | 959,339 | 1,015,938 |
| Large multiples | 53,949 | 59,105 | 67,299 | 73,852 | 1,093,178 | 1,883,809 | 2,580,073 | 3,837,244 |
| Independents | 503,639 | 489,355 | 480,612 | 403,876 | 3,335,464 | 4,798,548 | 5,379,448 | 6,278,634 |
| Grocers and provision dealers | 145,709 | 151,859 | 151,154 | 123,385 | 1,228,797 | 2,038,374 | 2,366,805 | 2,907,655 |
| Other food retailers | 137,867 | 123,295 | 127,304 | 104,359 | 991,331 | 1,544,703 | 1,770,600 | 2,081,314 |
| Confectioners, tobacconists, newsagents | 74,606 | 77,437 | 70,662 | 63,333 | 502,661 | 702,996 | 799,622 | 1,045,572 |
| Clothing and footwear shops | 100,011 | 97,656 | 96,612 | 83,199 | 966,336 | 1,180,212 | 1,384,576 | 1,741,141 |
| Household goods shops | 62,946 | 62,115 | 69,133 | 69,761 | 500,477 | 795,566 | 993,660 | 1,327,252 |
| Other non-food retailers | 60,352 | 61,360 | 58,692 | 57,540 | 374,413 | 563,050 | 673,909 | 988,131 |
| General stores | 1,641 | 3,683 | 3,750 | 2,835 | 436,115 | 762,253 | 929,687 | 1,040,751 |
| TOTAL RETAIL TRADE as defined in Establishment Tables | 583,132 | 577,405 | 577,307 | 504,412 | 5,000,130 | 7,587,154 | 8,918,860 | 11,131,816 |
| Electricity and gas showrooms | 2,454 | 2,620 | 2,791 | 3,012 | 38,838 | 62,492 | 104,174 | 185,780‡ |
| Mail order houses† | 434 | 377 | 556 | 495 | 45,879 | 126,312 | 226,673 | 428,834 |
| Automatic vending machine operators† | .. | 11 | 26 | 56 | .. | 2,297 | 4,072 | 10,884 |
| TOTAL excluding relay | .. | 580,413 | 580,680 | 507,975 | .. | 7,778,254 | 9,253,779 | 11,757,314 |
| Radio and television relay organizations†§ | .. | .. | .. | 250‖ | .. | .. | .. | 25,070¶ |
| TOTAL including relay | .. | .. | .. | 508,225 | .. | .. | .. | 11,782,384 |

† Numbers relate to organizations instead of establishments.
‡ Including the following amounts for installation, maintenance and repairs of appliances, not included in the previous years: Electricity showrooms – £19,026 thousand. Gas showrooms – £10,135 thousand.
§ Including estimates for organizations with less than 500 subscribers as follows: Organizations 195, turnover £680 thousand.
‖ Organizations doing commercial relay work other than those having retail or hire shops but no relay showrooms.
¶ Total turnover of relay businesses which are not in the retail (including rental) field and of relay establishments of large multiples which are in that field.

## Table 2. Percentage increases between censuses in Establishments and Turnover by Form of Organization and Broad Kind of Business, 1950-57 1957-61, 1961-66

| Kind of Business | Establishments | | | Turnover | | |
|---|---|---|---|---|---|---|
| | 1950-57 | 1957-61 | 1961-66† | 1950-57 | 1957-61 | 1961-66† |
| | % | % | % | % | % | % |
| TOTAL RETAIL TRADE | – 1·0 | – 6·1 | – 7·0 | 51·7 | 16·4 | 26·1 |
| Co-operative societies | 13·3 | 1·6 | – 9·2 | 58·3 | 6·0 | 5·9 |
| Large multiples | 9·6 | 12·8 | +10·7 | 72·3 | 36·9 | 48·8 |
| Independents | – 2·8 | – 8·8 | – 9·5 | 43·9 | 10·2 | 18·7 |
| Grocers and provision dealers | 4·2 | – 3·3 | –15·9 | 65·9 | 15·3 | 23·7 |
| Other food retailers | –10·6 | – 7·0 | – 9·0 | 55·8 | 11·9 | 20·4 |
| Confectioners, tobacconists, newsagents | 3·8 | – 9·5 | – 9·7 | 39·9 | 13·5 | 31·0 |
| Clothing and footwear shops | 2·4 | –11·4 | – 3·9 | 22·1 | 15·8 | 27·4 |
| Household goods shops | – 1·3 | 6·2 | 5·7 | 59·0 | 24·0 | 34·5 |
| Other non-food retailers | 1·7 | –11·2 | 5·6 | 50·4 | 18·7 | 47·8 |
| General stores | 124·4 | 1·8 | –24·4 | 74·8 | 22·0 | 11·9 |
| SERVICE TRADES | | | | | | |
| Boot and shoe repairers | –21·7 | –22·8 | –21·4 | 19·0 | 12·6 | 2·4 |
| Hairdressers | 4·1 | 16·5 | 18·6 | 63·8 | 55·6 | 39·6 |
| Laundries, launderettes and dry cleaners‡ | .. | .. | 22·9 | .. | .. | 53·2 |
| TOTAL RETAIL TRADE as defined in Establishment Tables | – 1·0 | – 6·1 | – 7·0 | 51·7 | 16·4 | 26·1 |
| Electricity and gas showrooms | 6·8 | 6·5 | 7·9 | 60·9 | 66·7 | 50·3§ |
| Mail order houses‡ | –13·1 | 47·5 | – 6·5 | 175·3 | 79·4 | 89·5 |
| Automatic vending machine operators‡ | .. | 136·4 | 115·4 | .. | 77·3 | 167·3 |
| TOTAL excluding relay and service trades | .. | – 6·0 | – 6·9 | .. | 17·8 | 28·0 |

† Adjusted for exclusion of certain market traders and mobile shops in 1966.
‡ Numbers relate to organizations instead of establishments.
§ Excluding installation, maintenance and repair receipts by electricity and gas showrooms.

**Table B. Percentage increase between censuses in persons engaged, total retail trade (†) 1950-57, 1957-61, 1961-66**

| | Total | Full-time | Part-time | Full-time equivalent (‡) |
|---|---|---|---|---|
| 1950-57 | 5·3 | -2·5 | 37·2 | 1·9 |
| 1957-61 | 0·5 | -0·1 | 2·3 | 0·2 |
| 1961-66 | 2·9 | -6·1 | 28·2 | -1·0 |

(†) Adjusted approximately to the categories covered in 1966
(‡) Counting 2 part-timers as 1 full-timer

Only in the dairyman kind of business was there a decline in the proportion working part-time in 1966 compared with 1961.

Among the three forms of organization the co-operative societies retained their position in 1966 of having the highest turnover per person engaged; this is a reflection of the predominance of grocery and provisions in the trade of the co-operative societies. Grocery and provision dealers shops accounted for nearly half the turnover of co-operative societies in 1966, well under one-third of that of large multiples, and less than one-quarter of the trade of independents. Table 4 shows that sales per person engaged in 1966 in the grocers and provision dealers group where self-service methods are increasingly being adopted were over one-quarter higher than sales per head of other food retailers. The report shows that sales per person engaged were again highest in off-licences in 1966 – but sales in this kind of business do of course reflect a higher tax content than in, for example, grocers shops.

**Table 3. Establishments, Turnover and Persons engaged by Form of Organization by Kind of Business, 1966**

| Kind of Business | All retail establishments | | | Co-operative societies | | | Large multiples | | | Independents | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Establishments | Turnover | Persons engaged† | Establishments | Turnover | Persons engaged† | Establishments | Turnover | Persons engaged† | Establishments | Turnover | Persons engaged† |
| | Number | £ thous. | Number | Number | £ thous. | Number | Number | £ thous. | Number | Number | £ thous. | Number |
| TOTAL RETAIL TRADE | 504,412 | 11,131,816 | 2,555,737 | 26,684 | 1,015,938 | 173,458 | 73,852 | 3,837,244 | 741,833 | 403,876 | 6,278,634 | 1,640,446 |
| Grocers and provision dealers | 123,385 | 2,907,655 | 522,343 | 12,819 | 485,503 | 72,535 | 14,115 | 1,056,318 | 157,004 | 96,451 | 1,365,834 | 292,804 |
| Other food retailers | 104,359 | 2,081,314 | 459,358 | 8,353 | 266,466 | 47,358 | 18,443 | 584,558 | 102,663 | 77,563 | 1,230,290 | 309,337 |
| Confectioners, tobacconists, newsagents | 63,333 | 1,045,572 | 297,762 | 134 | 5,298 | 363 | 6,300 | 151,448 | 30,974 | 56,899 | 888,826 | 266,425 |
| Clothing and footwear shops | 83,199 | 1,741,141 | 417,135 | 2,542 | 57,078 | 12,812 | 17,420 | 885,597 | 161,719 | 63,237 | 798,466 | 242,604 |
| Household goods shops | 69,761 | 1,327,252 | 299,871 | 1,221 | 41,571 | 6,693 | 10,697 | 368,999 | 67,133 | 57,843 | 916,682 | 226,045 |
| Other non-food retailers | 57,540 | 988,131 | 260,248 | 1,110 | 24,920 | 5,451 | 5,035 | 277,090 | 66,760 | 51,395 | 686,121 | 188,037 |
| General stores | 2,835 | 1,040,751 | 299,020 | 505 | 135,101 | 28,246 | 1,842 | 513,236 | 155,580 | 488 | 392,414 | 115,194 |

† Counting full-timers and part-timers equally.

**Table 4. Persons engaged, Turnover per person and Percentage of part-timers, by Form of Organization and Kind of Business, 1957, 1961, 1969**

**Note:** Figures for 1957 and 1961 have been adjusted approximately to exclude market traders, etc., omitted in 1966

| Form of Organization and Kind of Business | Persons engaged (full-time equivalent)† | | | Turnover per person engaged (full-time equivalent)† | | | Percentage of persons engaged working part-time‡ | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 |
| | Number | Number | Number | £ | £ | £ | % | % | % |
| TOTAL RETAIL TRADE | 2,158,231 | 2,158,829 | 2,138,171 | 3,475 | 4,089 | 5,206 | 23·4 | 26·2 | 32·7 |
| Co-operative societies | 188,898 | 184,499 | 158,338 | 4,790 | 5,200 | 6,416 | 8·8 | 10·9 | 17·4 |
| Large multiples | 474,028 | 550,748 | 621,637 | 3,974 | 4,682 | 6,173 | 21·5 | 25·9 | 32·4 |
| Independents | 1,495,305 | 1,423,582 | 1,358,195 | 3,151 | 3,716 | 4,623 | 28·4 | 28·2 | 34·4 |
| Grocers and provision dealers | 484,659 | 480,166 | 435,519 | 4,179 | 4,896 | 6,676 | 24·2 | 25·9 | 33·2 |
| Other food retailers | 419,531 | 418,086 | 397,953 | 3,593 | 4,133 | 5,230 | 21·9 | 22·7 | 26·7 |
| Confectioners, tobacconists, newsagents | 206,620 | 185,846 | 205,821 | 3,395 | 4,293 | 5,080 | 54·5 | 51·2 | 61·8 |
| Clothing and footwear | 351,037 | 347,208 | 352,576 | 3,308 | 3,936 | 4,938 | 22·5 | 25·1 | 31·0 |
| Household goods shops | 232,268 | 254,558 | 270,064 | 3,392 | 3,877 | 4,915 | 16·9 | 17·2 | 19·9 |
| Other non-food retailers | 203,896 | 198,492 | 222,476 | 2,721 | 3,367 | 4,442 | 21·3 | 22·3 | 29·0 |
| General stores | 260,220 | 274,473 | 253,760 | 2,929 | 3,387 | 4,101 | 19·3 | 24·5 | 30·3 |

† Counting two part-timers as equivalent to one full-timer.
‡ Counting full-timers and part-timers equally.

Table 5 shows the development between 1957 and 1966 of important aspects of retailing – stockturn, percentage gross margins, instalment credit and capital expenditure. The table compares the performance of the three forms of organization and for large multiple and independent organizations breaks the figures down into seven broad kind of business classifications. (Note: Stockturn is the ratio of turnover during the year to end-year stocks. Gross margin is the difference between (a) turnover less stocks at the beginning of the year and (b) purchases less stocks at the end of the year. The gross margin represents the fund out of which come the expenses of running the business, including any trading surplus).

### Gross margin and stockturn

Stockturn ratios slowed slightly between 1961 and 1966 for co-operative societies and remained the same for independents; the ratio for large multiples increased slightly. Percentage gross margin (gross margin as a percentage of turnover) increased between 1957 and 1961 and again between 1961 and 1966 for each form of organization. These trends were generally a continuation of the experience between 1957 and 1961. Within the different kinds of business gross margin percentages were up except for grocers and provision dealers and confectioners, tobacconists, newsagents – both very slightly down, though in the case of grocers and provision dealers accompanied by a quicker turnround of stocks. Non-food groups i.e. household goods shops, the clothing and footwear groups and the general stores groups achieved both a higher stockturn ratio and increased gross margins. Changes between census years in stockturn ratios and gross margin percentages must be interpreted cautiously; for individual kinds of business the comparisons between census years are affected by changes in the range of commodities, and taking retailing as a whole, a change in the balance of trade in different commodities sold (which attract different margins and for which stockturn can vary markedly) will affect the ratio. Other factors which will affect the ratios are changes in trading methods – the growth of supermarkets and the increase in refrigeration of butchers and fishmongers, for example; for large organizations the ratios may reflect mixed retail activities and may include in turnover receipts from services and sometimes from productive services, i.e. baking. The influence of the trade cycle in relation to the year must be borne in mind, too.

### Instalment credit sales

As a percentage of the value of all goods sold, instalment credit sales rose slightly between 1961 and 1966 (but this was due to the inclusion in 1966 of sales against checks or vouchers issued

(*Continued on next page*)

## CENSUS OF DISTRIBUTION, 1966, *continued*

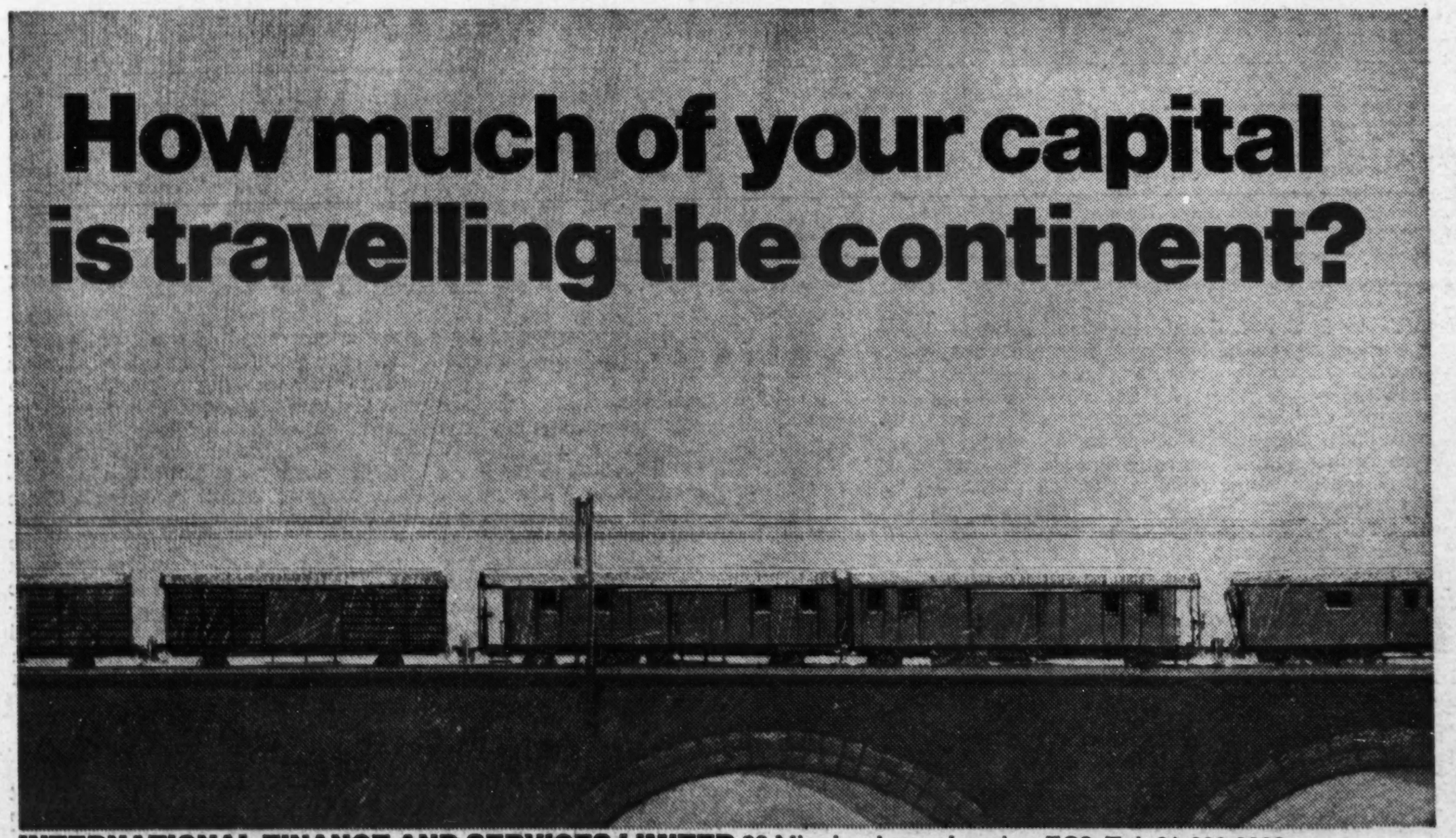
by other organizations (amounting to £63 million in 1966) not included in the 1961 figures) – within forms of organization it was down for co-operative societies and large multiples but up for independents. For organizations other than co-operative societies the percentage for the important household goods shops group declined whereas in the general stores group, where the percentage of instalment credit sales is always relatively high, the proportion rose again in 1966. This rise reflects the continued strong growth of instalment credit sales by the independents in the general stores group and particularly the sales of general mail

**Table 5. Turnover, Stockturn, Gross margin, Instalment credit sales and Capital expenditure by Kind of Businsss by Form of Organization, 1957, 1961, 1966**

**Note:** Radio and television relay organizations are excluded from this table

| Kind of Business and Form of Organization | Turnover | | | Turnover divided by end-year stocks | | | Gross margin as a percentage of turnover | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 |
| | £ thous. | £ thous. | £ thous. | Ratio | Ratio | Ratio | % | % | % |
| TOTAL RETAIL TRADE | 7,793,697 | 9,215,794 | 11,660,929 | 9·3 | 9·1 | 9·2 | *23·3* | *24·9* | *26·7* |
| Co-operative societies | 957,052 | 1,012,245 | 1,089,526 | 11·8 | 10·8 | 10·7 | *21·8* | *23·1* | *23·5* |
| Large multiples | 1,912,034 | 2,619,243 | 3,865,045 | 9·0 | 9·2 | 9·4 | *26·4* | *28·2* | *31·0* |
| Independents | 4,924,611 | 5,584,306 | 6,706,358 | 9·1 | 8·9 | 8·9 | *22·4* | *23·7* | *24·8* |
| Organizations other than co-operative societies | 6,836,645 | 8,203,549 | 10,571,403 | 9·0 | 9·0 | 9·1 | *23·6* | *25·1* | *27·1* |
| Grocers and provision dealers | 1,578,329 | 1,885,581 | 2,399,306 | 14·4 | 14·4 | 15·2 | *15·4* | *16·2* | *16·1* |
| Large Multiples | 456,865 | 638,944 | 1,033,223 | 13·3 | 12·8 | 14·4 | *17·6* | *18·0* | *17·8* |
| Independents | 1,121,464 | 1,246,637 | 1,366,083 | 14·9 | 15·5 | 15·8 | *14·6* | *15·2* | *14·8* |
| Other food retailers | 1,316,136 | 1,539,427 | 1,852,170 | 39·1 | 35·8 | 32·9 | *22·1* | *24·0* | *25·3* |
| Large Multiples | 290,971 | 420,313 | 622,859 | 24·9 | 22·2 | 20·4 | *24·1* | *26·3* | *28·7* |
| Independents | 1,025,164 | 1,119,114 | 1,229,311 | 46·8 | 46·4 | 48·0 | *21·5* | *23·2* | *23·6* |
| Confectioners, tobacconists, newsagents | 692,191 | 772,484 | 1,023,942 | 13·0 | 12·5 | 12·1 | *14·9* | *16·0* | *15·9* |
| Large Multiples | 74,109 | 80,032 | 135,152 | 10·5 | 10·3 | 10·2 | *17·7* | *21·3* | *21·2* |
| Independents | 618,082 | 692,452 | 888,791 | 13·4 | 12·8 | 12·4 | *14·6* | *15·3* | *15·0* |
| Clothing and footwear shops | 1,129,975 | 1,323,135 | 1,706,379 | 5·2 | 5·5 | 5·6 | *28·1* | *29·1* | *32·4* |
| Large Multiples | 463,968 | 628,496 | 891,411 | 6·5 | 6·7 | 6·9 | *27·7* | *29·1* | *33·4* |
| Independents | 666,006 | 694,640 | 814,968 | 4·6 | 4·7 | 4·7 | *28·3* | *29·1* | *31·4* |
| Household goods shops | 767,122 | 952,885 | 1,296,109 | 5·2 | 5·4 | 5·9 | *30·4* | *34·7* | *38·1* |
| Large Multiples | 152,724 | 229,939 | 371,841 | 5·7 | 7·0 | 7·8 | *39·5* | *51·0* | *53·8* |
| Independents | 614,398 | 722,945 | 924,268 | 5·1 | 5·0 | 5·4 | *28·1* | *29·5* | *31·8* |
| Other non-food retailers | 565,393 | 682,594 | 995,241 | 5·2 | 5·0 | 5·0 | *31·7* | *31·1* | *31·6* |
| Large Multiples | 146,956 | 195,316 | 288,542 | 5·9 | 5·8 | 5·5 | *33·7* | *31·3* | *33·5* |
| Independents | 418,437 | 487,279 | 706,699 | 5·0 | 4·7 | 4·9 | *31·0* | *31·1* | *30·9* |
| General stores | 787,500 | 1,047,443 | 1,298,254 | 8·9 | 8·6 | 8·9 | *30·9* | *32·0* | *37·1* |
| Large Multiples | 326,440 | 426,204 | 522,016 | 8·9 | 8·8 | 8·0 | *31·5* | *31·6* | *40·5* |
| Independents | 461,060 | 621,240 | 776,238 | 8·9 | 8·5 | 9·7 | *30·5* | *32·2* | *34·8* |

† 1966 figures include sales against checks or vouchers issued by other organizations amounting to about £63 million.
‡ Returns received only. The instalment credit sales of retailers who failed to make a satisfactory census return in 1961 were estimated to amount to not more than £10 million.
§ Credit sales of large organizations only are shown for grocers, other food retailers and confectioners, tobacconists, newsagents in 1961.

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order houses (97.8 per cent on instalment credit) which rose at a faster rate than other kinds of business in the group. As a percentage of all retail instalment credit sales (excluding TV relay instalment credit sales and sales against the checks and vouchers of other organizations) the sales of general mail order houses rose from 28 per cent in 1961 to 41 per cent in 1966.

### Capital expenditure

The report analyses capital expenditure by retailers by its various components: new building work, land and existing buildings acquired and disposed of, vehicles acquired and disposed of and plant, machinery and other capital equipment acquired and disposed of. For retail trade as a whole the net components of the total given in Table 5 are as follows:

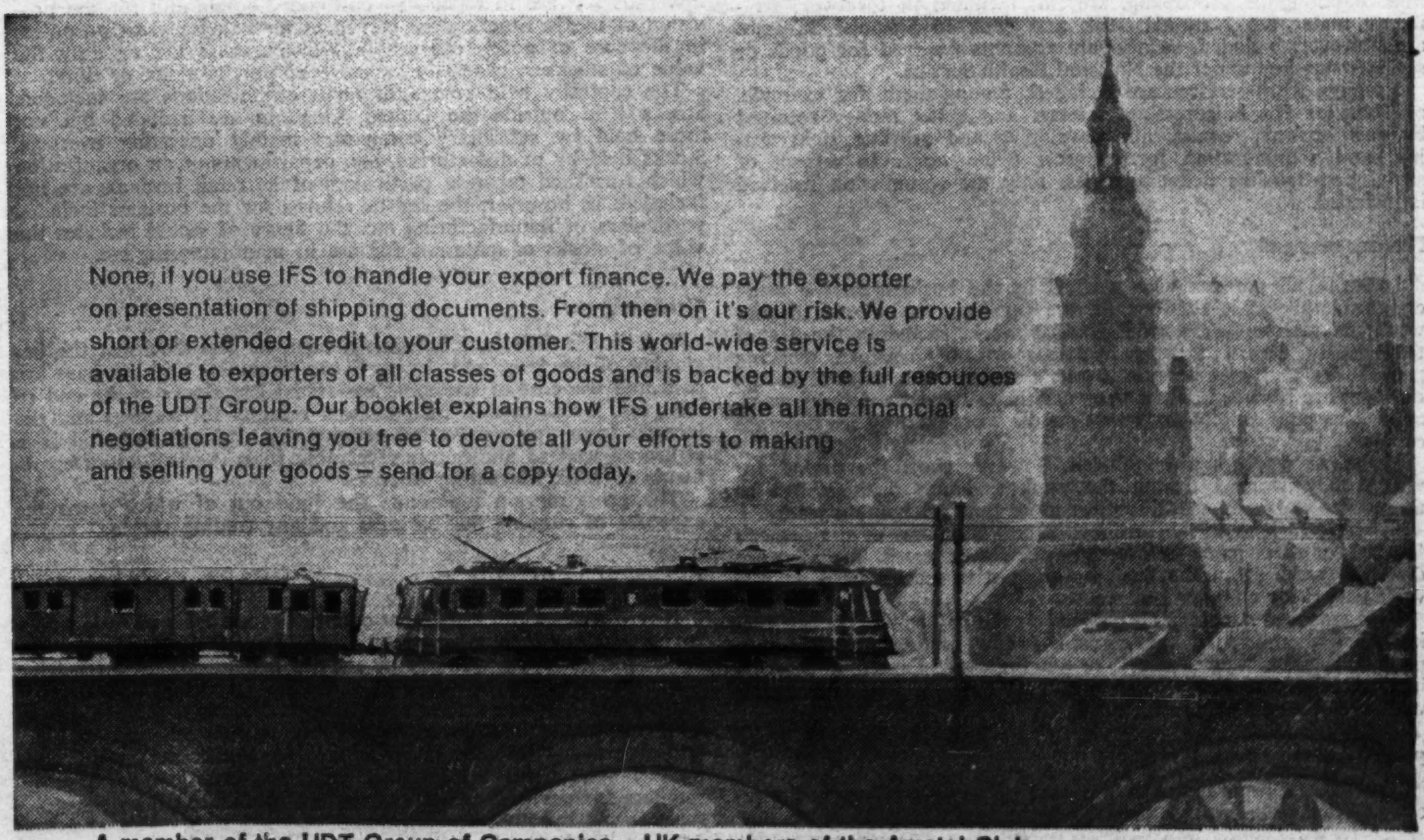
**Capital expenditure 1966**

| | £ million |
|---|---|
| Total capital expenditure (net) | 229 |
| New building work | 75 |
| Land and existing buildings | 18 |
| Vehicles | 42 |
| Plant, machinery and other capital equipment | 93 |

For the three forms of organization the 1966 capital expenditure figures expressed as percentages of their gross margins are: co-operative societies 7 per cent, large multiple organizations 11 per cent and for independent organizations 5 per cent.

| Instalment credit sales † | | | | | | Capital expenditure (net) | | Kind of Business and Form of Organization |
|---|---|---|---|---|---|---|---|---|
| Amount | | | As a percentage of total goods sold | | | | | |
| 1957 | 1961‡ | 1966 | 1957 | 1961 | 1966 | 1961 | 1966 | |
| £ thous. | £ thous. | £ thous. | % | % | % | £ thous. | £ thous. | |
| 575,085 | 716,052 | 981,547 | 7·6 | 8·6 | 8·7 | 211,139 | 228,623 | TOTAL RETAIL TRADE |
| 64,966 | 75,236 | 76,075 | 6·9 | 7·6 | 7·3 | 20,586 | 18,614 | Co-operative societies |
| 165,720 | 200,392 | 276,034 | 9·0 | 8·1 | 7·6 | 107,531 | 125,737 | Large Multiples |
| 344,399 | 440,424 | 629,441 | 7·2 | 9·1 | 9·6 | 83,022 | 84,272 | Independents |
| 510,119 | 640,816 | 905,472 | 7·7 | 8·7 | 8·9 | 190,553 | 210,009 | Organizations other than co-operative societies |
| | | 663 | | | 0·0 | 36,769 | 37,800 | Grocers and provision dealers |
| | | | | | | 18,143 | 21,706 | Large Multiples |
| | | | | | | 18,626 | 16,094 | Independents |
| | | 767 | | | 0·0 | 32,202 | 32,050 | Other food retailers |
| 554 | 1408 | | 0·0 | 0·0 | | 12,556 | 13,725 | Large Multiples |
| | | | | | | 19,646 | 18,324 | Independents |
| | | 118 | | | 0·0 | 6,702 | 12,478 | Confectioners, tobacconists, newsagents |
| | | | | | | 1,156 | 4,287 | Large Multiples |
| | | | | | | 5,546 | 8,191 | Independents |
| 79,647 | 100,041 | 166,416 | 7·1 | 8·1 | 9·9 | 31,514 | 38,376 | Clothing and footwear shops |
| 14,578 | 35,126 | 71,901 | 3·2 | 5·7 | 8·2 | 21,253 | 29,412 | Large Multiples |
| 65,069 | 64,915 | 94,515 | 9·9 | 10·5 | 11·7 | 10,261 | 8,964 | Independents |
| 218,117 | 208,187 | 238,304 | 30·9 | 27·6 | 21·9 | 47,769 | 44,476 | Household goods shops |
| 86,880 | 99,077 | 126,986 | 63·9 | 60·5 | 50·1 | 32,914 | 28,630 | Large Multiples |
| 131,236 | 109,110 | 111,318 | 23·1 | 18·5 | 13·3 | 14,855 | 15,847 | Independents |
| 8,901 | 5,988 | 11,883 | 1·7 | 1·0 | 1·2 | 12,341 | 17,856 | Other non-food retailers |
| 3,839 | 908 | 3,794 | 2·7 | 0·5 | 1·4 | 5,361 | 10,014 | Large Multiples |
| 5,063 | 5,080 | 8,089 | 1·3 | 1·2 | 1·2 | 6,980 | 7,842 | Independents |
| 202,900 | 326,460 | 487,324 | 26·5 | 32·0 | 38·5 | 23,256 | 26,972 | General stores |
| 60,255 | 65,217 | 72,693 | 19·0 | 15·7 | 14·3 | 16,149 | 17,962 | Large Multiples |
| 142,645 | 261,243 | 414,631 | 31·9 | 43·2 | 54·8 | 7,107 | 9,009 | Independents |

(*Continued on next page*)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## CENSUS OF DISTRIBUTION, 1966, *continued*

### The service trades

Table 6 summarizes number of establishments, turnover and persons engaged in the service trades (only 1961 and 1966 for laundries group). The increase of one-quarter in numbers of laundry organizations reflected an increase in numbers of launderettes; these are estimated to have risen from 1,065 to 2,554.

**Table 6. Service trades. Establishments. Turnover and Persons engaged, 1957, 1961, 1966**

| | Establishments | | | Turnover (£ thous.) | | | Persons engaged‡ | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 | 1957 | 1961 | 1966 |
| Hairdressers | 34,458 | 40,152 | 47,632 | 62,495 | 97,267 | 135,823 | 102,273 | 139,175 | 163,298 |
| Boot and shoe repairers | 14,458 | 11,154 | 8,769 | 22,590 | 25,436 | 26,039 | 28,265 | 24,183 | 19,154 |
| Laundries group † | .. | 4,573 | 5,621 | .. | 112,483 | 172,287 | .. | 136,819 | 141,329 |

† organizations.
‡ Counting full-timers and part-timers equally.
.. Not available.

## DEFINITIONS

### Turnover

This includes the total trading receipts for the year, including receipts for meals and services, after deduction of all discounts, credits and deferred rebates allowed to customers or staff. Dividends paid by co-operative societies are not deducted from turnover.

Hire purchase and other credit transactions originated during the year are included at their cash value plus any charge for credit provided. Sales against the checks of a check trading company are included at their face value.

Purchase tax is included; any extra charges for delivery and any charges on packing cases less allowances on returned cases are also included.

Allowances for goods taken in part exchange are not deducted from turnover.

Allowances and rebates receivable directly or indirectly from the Agricultural Departments or the Milk Marketing Boards for milk handling or processing, are not included in turnover; payments under the National Milk and Milk in Schools' Schemes are however, included, as also are amounts received for goods or services supplied under the National Health Service.

Receipts from services are included; among them, for example, are charges for hairdressing, interest and ticket money received by pawnbrokers, repairs, film developing and printing, sight testing, and remuneration for sub-post office work. In respect of such operations as ticket agencies, only the commission received is included.

### Persons engaged

Includes all persons who worked in the business in the week ended October 29, 1966 or (if the business was closed in that week) in the nearest normal trading week, including those staff temporarily absent through sickness or holidays. All working proprietors and members or owner's family who worked in the business are included, whether or not they received a definite wage, as well as paid employees. Part-time directors paid by fee only are excluded.

Part-time workers are included, however short the period for which they worked during the week and are distinguished as those who normally work for not more than 30 hours a week.

Owners working in the business include members of the owner's family not receiving a definite wage for their work. Included are directors working in the business but not in receipt of a definite wage, salary or commission.

Paid employees include all persons on the pay roll of the business including members of the owner's family or friends who were paid a definite wage, salary or commission. Directors working in the business in receipt of a definite wage, salary or commission with or without a fee are included.

### Purchases

The value of purchases is the cost of goods and materials received during the year for resale, for use in repairs to customers' goods or for sale in the form of meals and refreshments, after deductions of all discounts, rebates and bonuses allowed by suppliers. The cost of purchasing wrapping materials is included.

Sums paid to other firms for carriage inward, charges for packing cases, etc. in which goods are received (less amounts allowed on return cases), and other payments before the goods are taken into stock (for example, duties and insurance) are included.

The value of goods returned to or credited by suppliers is excluded; allowances given for customers' goods taken in part exchange are included. Payments made to other firms for work given out in connection with repairs to customers' goods or other services to customers are included. Purchase tax (whether included in the cost of goods bought or paid direct to HM Customs and Excise) is included.

Allowances received from the Agricultural Departments or the Milk Marketing Boards have been deducted from the cost of goods bought. Goods, etc. received from manufacturing, catering, repair or wholesale departments of an organization which furnished separate particulars of its retail business are included in purchases and valued, as far as possible, at cost of buying similar goods etc. in similar quantities, from an independent supplier. If, however, particulars for the retail business included particulars of manufacturing, etc. the cost of materials used in the manufacturing etc. is included.

### Stocks

These include stocks of goods on hand for sale, including materials for use in repairs to customers' goods and for the provision of meals. Stocks were valued as for balance sheet purposes; in the case of goods chargeable with purchase tax or duty the value of stocks is generally inclusive of purchase tax or duty.

The centrally held stocks of large organizations are included. Stocks held outside the United Kingdom are included but not those held by subsidiary companies mainly operating overseas. Stocks held by manufacturing, etc. departments of an organization which furnished separate particulars of its retail business are not included; if, however, the census returns for the business included particulars of manufacturing etc. the figure of stocks includes the value of stocks of materials for use in manufacturing etc.

### Gross margin

This is the difference between a turnover less stocks at the beginning of the year, and (b) purchases (including any purchase tax paid and the cost of wrapping materials) less stocks at the end of the year. Gross margin includes any receipts for services and the income from any productive activity (e.g. baking) included in a return as well as allowances receivable from Agricultural Departments or Milk Marketing Boards.

The gross margin represents the fund out of which come the expenses of running the business and any trading surplus.

### Instalment credit sales

Hire Purchase and instalment credit sales are referred to in tables for brevity as Instalment credit sales. They include all sales for which the customer will pay by regular instalments after receiving the goods, whether or not with a written agreement and whether the transaction was financed by the retailer or a finance house. They exclude ordinary weekly, monthly or quarterly account sales and club sales where the customer paid for goods in advance. They include sales against checks or vouchers, both those issued by retailers for use in their own shops and (unlike previous censuses) those issued by other organizations.

**Capital expenditure**

This includes all expenditure charged by retailers to capital asset accounts during the year, such as new building work, the cost of vehicles and other items of capital equipment, including those bought on hire purchase, and includes any expenditure in the year on aditions to capital assets which is temporarily being carried forward under other headings e.g. payments on account of capital assets in process of requisition.

The following are excluded: the value of any assets acquired in taking over an existing business; expenditure on intangible assets such as goodwill; transfers to capital asset accounts during the year brought forward under other headings from the previous year; and expenditure on any items which were to be used outside the United Kingdom.

'New building work' includes expenditure on the construction of new buildings, the extension or improvement of old buildings, site preparation and other civil engineering work, and the cost of any other newly constructed buildings purchased.

Architects' and surveyors' fees and any legal charges, stamp duties, agents' commissions, etc. are included under expenditure on land and buildings. For 'land and existing buildings', expenditure includes the capital cost of acquiring freeholds or leaseholds.

For vehicles, plant, machinery and other capital equipment, expenditure includes all vehicles and other equipment for use in connection with the business, and not covered by previous headings.

**Wages and salaries**

Wages and salaries are the sums payable for the year to persons who worked in the business during the year and who received a definite wage, salary or commission. All bonuses, commissions and fees payable to these persons are included. The sums payable are before deductions have been made, for example for income tax and insurance contributions. They do not include payments in kind, on employers' contribution to national insurance or pension schemes. Drawings of proprietors are not included.

# Sales by wholesale textile houses

SALES BY WHOLESALE textile houses in January showed a decrease of 4 per cent on a year earlier, compared with a decrease of 14 per cent in November and an increase of 1 per cent in December.

The value of stocks at the end of January was 8 per cent higher than a year earlier.

**Table 1. Total sales and stocks**

Index numbers and *percentage increase compared with a year earlier* 1950 = 100

| | Value of home sales | | Value of stock end period | |
|---|---|---|---|---|
| 1966 | 110 | *– 3* | .. | .. |
| 1967 | 104 | *– 5* | .. | .. |
| 1968 | 108 | *4* | .. | .. |
| 1969 | 103 | *– 5* | .. | .. |
| 1968 1st quarter | 102 | *10* | 135 | *–15* |
| 2nd quarter | 93 | *3* | 129 | *– 6* |
| 3rd quarter | 105 | *1* | 146 | *– 2* |
| 4th quarter | 132 | *3* | 126 | *8* |
| 1969 1st quarter | 88 | *–13* | 153 | *13* |
| 2nd quarter | 98 | *5* | 138 | *7* |
| 3rd quarter | 100 | *– 4* | 157 | *8* |
| 4th quarter | 124 | *– 6* | 147 | *17* |
| 1969 January | 62 | *– 9* | 129 | *9* |
| February | 90 | *– 8* | 143 | *10* |
| March | 113 | *–19* | 153 | *13* |
| April | 108 | *12* | 143 | *9* |
| May | 96 | *– 1* | 149 | *8* |
| June | 90 | *6* | 138 | *7* |
| July | 76 | *– 8* | 149 | *12* |
| August | 93 | *– 3* | 153 | *7* |
| September | 131 | *– 3* | 157 | *8* |
| October | 141 | *– 4* | 139 | *3* |
| November | 118 | *–14* | 154 | *15* |
| December | 114 | *1* | 147 | *17* |
| 1970 January | *60* | *– 4* | 140 | *8* |

**Table 2. Analysis by department**

*Percentage increase compared with a year earlier*

| | Sales | Stocks‡ |
|---|---|---|
| | January 1970 | January 1970 |
| Women's knitted outerwear, blouses and skirts | *19* | *– 1* |
| Women's coats, costumes, furs and raincoats | *29* | *– 2* |
| Women's underwear | *–21* | *16* |
| Women's hose and children's socks | *– 2* | *–19* |
| Women's millinery | *–23* | *–18* |
| Haberdashery, ribbons and wool | *–29* | *– 1* |
| Children's wear | *–18* | *19* |
| Men's and boys' shirts, pyjamas and outfitting | *– 1* | *9* |
| Gloves | *– 5* | *– 7* |
| Piece-goods and nets | *–17* | *–50* |
| Household textiles | *–19* | *–37* |
| Floor coverings, furniture and hardware | *– 3* | *6* |
| Total† | *– 4* | *8* |

†Including some items not included among the sub-headings. ‡Values at cost

**Note:**

These statistics are prepared by Textile Distributors' Association. Inquiries should be addressed to the Secretary, The Textile Distributors' Association, 75 Cannon Street, London, E.C.4 (Tel. 01-248 4444).

# *Footwear industry: orders and deliveries*

IN THE THREE MONTHS ending January net new orders received and deliveries by the footwear industry were 11 per cent less and 5 per cent less respectively than in the three months ending October 1969. As a consequence of deliveries exceeding net new orders, order books at the end of January were 12 per cent lower than at the end of October 1969.

The comparisons given above are based on the seasonally adjusted series in the accompanying table.

Care should be exercised in the interpretation of these statistics, which are available by total pairage only; no allowance is, therefore, possible for the differing values of the various types of footwear. A breakdown of deliveries by types of footwear in pairage terms is published in the Board of Trade Business Monitor Production Series (Reference P17).

Million pairs

| | Orders-on-hand | | Net new orders | | Deliveries | |
|---|---|---|---|---|---|---|
| 1964 | 35·8 | | — | | 16·8 | |
| 1965 | 39·9 | | 16·8 | | 16·5 | |
| 1966 | 33·9 | | 15·7 | | 16·2 | |
| 1967 | 37·9 | | 16·2 | | 15·9 | |
| 1968 | 41·2 | | 17·0 | | 16·8 | |
| 1969 p | 35·1 | | 15·7 | | 16·2 | |
| | Actual | Seasonally adjusted | Actual | Seasonally adjusted | Actual | Seasonally adjusted |
| 1967 1st qtr. | 40·5 | 37·3 | 18·3 | 16·9 | 16·1 | 15·7 |
| 2nd qtr. | 41·9 | 33·2 | 15·6 | 14·5 | 15·2 | 15·9 |
| 3rd qtr. | 30·2 | 34·8 | 12·0 | 16·3 | 15·9 | 15·8 |
| 4th qtr. | 37·9 | 37·9 | 18·9 | 17·0 | 16·3 | 16·0 |
| 1968 1st qtr. | 46·0 | 40·1 | 19·8 | 17·4 | 17·1 | 16·7 |
| 2nd qtr. | 50·0 | 38·4 | 16·8 | 15·7 | 15·4 | 16·2 |
| 3rd qtr. | 38·2 | 42·0 | 13·0 | 18·1 | 17·0 | 16·9 |
| 4th qtr. | 41·2 | 41·2 | 18·5 | 17·0 | 17·5 | 17·3 |
| 1969 1st qtr. | 47·5 | 41·9 | 19·1 | 16·8 | 17·0 | 16·6 |
| 2nd qtr. | 48·9 | 39·2 | 15·7 | 15·1 | 15·2 | 16·0 |
| 3rd qtr. | 34·6 | 38·9 | 11·5 | 16·1 | 16·3 | 16·2 |
| 4th qtr. p | 35·1 | 35·1 | 16·6 | 14·8 | 16·4 | 16·1 |
| 1968 Nov. | 38·1 | 38·9 | 17·3 | 13·4 | 18·8 | 16·8 |
| Dec. | 41·2 | 41·2 | 17·4 | 20·1 | 14·3 | 17·8 |
| 1969 Jan. | 39·7 | 41·1 | 13·7 | 16·7 | 15·2 | 16·8 |
| Feb. | 44·2 | 42·7 | 22·1 | 17·6 | 17·6 | 16·0 |
| Mar. | 47·5 | 41·9 | 21·4 | 16·1 | 18·1 | 16·9 |
| Apr. | 50·5 | 42·7 | 18·3 | 16·6 | 15·3 | 15·8 |
| May | 52·4 | 41·5 | 16·8 | 14·4 | 14·9 | 15·6 |
| June | 48·9 | 39·2 | 12·0 | 14·3 | 15·5 | 16·6 |
| July | 42·8 | 39·7 | 9·0 | 16·9 | 15·1 | 16·4 |
| Aug. | 38·8 | 38·9 | 10·6 | 15·3 | 14·6 | 16·1 |
| Sept. | 34·6 | 38·9 | 15·0 | 16·2 | 19·2 | 16·1 |
| Oct. p | 33·9 | 37·6 | 18·5 | 15·6 | 19·2 | 16·9 |
| Nov. p | 35·7 | 37·0 | 18·9 | 14·7 | 17·1 | 15·3 |
| Dec. p | 35·1 | 35·1 | 12·3 | 14·2 | 12·9 | 16·0 |
| 1970 Jan. p | 32·0 | 33·0 | 10·6 | 13·0 | 13·7 | 15·1 |

The actual figures have been adjusted to allow for differences in the length of the working months but not for holidays or for any other seasonal variations; the annual and quarterly figures of net new orders and deliveries are monthly averages.

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*Inquiries concerning the insertion of advertisements in the* Board of Trade Journal *should be addressed to HMSO, Room D92, Atlantic House, Holborn Viaduct, London, E.C.*1 (01-248 9876, *Ext.* 6147).

WHOLESALE PRICE INDEX NUMBERS

# Slower increase in materials prices

THE SLOWER rate of increase in materials prices evident in January continued in February. The provisional price index for basic materials and fuel used in all manufacturing industry rose under ½ per cent between December and February, compared with 2 per cent during the previous two months. The main increase recently has been a rise of about 10 per cent in prices of coal (both for carbonizing and for direct use as fuel) which took place part way through January, the full effect on the index appearing only in February. Materials and fuel other than coal included in the index have, taken together, fallen slightly in price since the end of last year.

Output prices continued to rise in February. An increase of over ¼ per cent in the provisional index for home sales of manufactured products brought the rise in the last 12 months to 4½ per cent, about two-thirds of which has occurred in the last six months.

**Materials and fuel used in broad sectors of industry (Table 1)**

The provisional index for the prices of materials and fuel purchased by the food manufacturing industries fell 1 per cent in February, back to its November figure, mainly because of lower prices for raw sugar. There were increases in price index numbers for all non-food sectors, most of which amounted to at least ½ per cent. Increased prices for coal and coke were the predominant factors in the rises in the index numbers for the steel industries (1 per cent higher than in January), for the chemicals and allied industries (½ per cent higher), and for the textiles and paper industries (each slightly higher). Index numbers for engineering sectors rose 1 to 2 per cent largely because of higher steel prices. The steel increase also accounted for much of the rise of ¼ per cent in the index for construction materials.

**Output of broad sectors of industry – home sales (Table 2)**

The index of the prices of goods sold by the steel industries rose 5½ per cent in February, increases over a wide range of products having been made in the last few days of January. This index has risen 19 per cent since February 1969. The index for the paper industries rose 1 per cent, bringing the increase during the last 12 months to 7 per cent. There were smaller increases of up to ½ per cent in February in provisional index numbers for other sectors of manufacturing. In these sectors increases compared with a year ago have varied from 2 per cent in textiles and clothing and footwear to 6 per cent in the engineering sectors.

**Table 1. Price Index numbers of materials purchased** — **1963 = 100**

| 1968 SIC | | 1968 | 1969 | | | | 1969 | | | | | | | 1970 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 4th qtr. | 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | Feb. | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. p | Feb. p |
| | MATERIALS PURCHASED BY MANUFACTURING INDUSTRY | | | | | | | | | | | | | | |
| Orders III to XIX | Basic materials and fuel used in manufacturing industry: | 118·3 | 119·6 | 120·3 | 121·4 | 124·1 | 119·5 | 120·5 | 121·7 | 122·0 | 122·8 | 124·4 | 125·2 | 125·5 | 125·6 |
| | Basic materials | 118·0 | 119·6 | 120·5 | 121·8 | 124·7 | 119·5 | 120·7 | 122·2 | 122·4 | 123·2 | 124·9 | 125·9 | 126·1 | 126·0 |
| | †Fuel | 119·9 | 119·9 | 119·8 | 119·8 | 120·9 | 119·9 | 119·8 | 119·8 | 119·8 | 120·9 | 120·9 | 120·9 | 122·1 | 123·6 |
| Orders IV to XIX | Basic materials and fuel used in manufacturing industry other than food, drink and tobacco manufacturing industries: | 120·4 | 122·3 | 124·2 | 126·1 | 127·3 | 122·3 | 124·8 | 127·0 | 126·4 | 125·9 | 127·5 | 128·4 | 128·8 | 129·8 |
| | Basic materials other than fuel | 120·5 | 122·8 | 125·2 | 127·5 | 128·7 | 122·8 | 126·0 | 128·7 | 127·9 | 127·0 | 129·0 | 130·2 | 130·3 | 131·0 |
| | MATERIALS AND FUEL PURCHASED BY SELECTED BROAD SECTORS OF INDUSTRY | | | | | | | | | | | | | | |
| 211-229 | Food manufacturing industries | 113·4 | 113·7 | 112·5 | 112·4 | 118·0 | 113·6 | 111·8 | 111·6 | 113·7 | 116·8 | 118·3 | 119·0 | 119·3 | 118·3 |
| Order V | Chemicals and allied industries | 114·6 | 115·2 | 116·2 | 116·8 | 118·7 | 115·3 | 116·1 | 117·1 | 117·1 | 117·5 | 118·9 | 119·6 | 119·4 | 120·0 |
| 311 and 312 | Steel industries | 114·6 | 115·3 | 115·6 | 116·9 | 118·8 | 115·3 | 116·9 | 116·7 | 117·0 | 117·8 | 118·7 | 120·0 | 121·4 | 122·8 |
| Order VII (excluding MLH 342) | Mechanical engineering industries | 117·2 | 120·0 | 122·6 | 126·8 | 130·6 | 120·2 | 125·7 | 127·1 | 127·5 | 129·0 | 130·5 | 132·3 | 133·1 | 136·0 |
| Order IX | Electrical engineering industry | 130·0 | 136·7 | 143·2 | 149·5 | 153·3 | 137·4 | 146·5 | 150·9 | 151·1 | 149·6 | 153·4 | 156·9 | 155·5 | 157·1 |
| 361 | Electrical machinery industry | 124·0 | 128·2 | 132·5 | 137·5 | 141·6 | 128·5 | 135·4 | 138·0 | 139·0 | 139·2 | 141·7 | 143·8 | 144·3 | 146·5 |
| Order XIII | Textile industries | 104·3 | 103·7 | 104·3 | 103·4 | 102·8 | 103·6 | 103·6 | 103·5 | 103·0 | 102·8 | 102·7 | 102·9 | 103·5 | 103·6 |
| Order XV | Clothing and footwear industries | 112·4 | 114·2 | 116·0 | 116·3 | 116·8 | 114·2 | 116·1 | 116·4 | 116·6 | 116·7 | 116·7 | 117·0 | 117·1 | 117·2 |
| Order XVII | Timber industries | 122·3 | 124·3 | 126·0 | 127·8 | 129·3 | 124·5 | 127·4 | 127·7 | 128·1 | 128·8 | 129·3 | 129·8 | 130·4 | 131·4 |
| 481–484 | Paper industries | 116·0 | 118·0 | 119·4 | 121·8 | 123·6 | 118·1 | 121·0 | 122·0 | 122·3 | 122·7 | 123·8 | 124·3 | 128·0 | 128·2 |
| Order XX | Construction materials | 115·6 | 116·6 | 118·1 | 119·9 | 121·9 | 116·7 | 119·6 | 119·8 | 120·2 | 120·7 | 121·9 | 123·0 | 123·5 | 124·6 |
| Part of Order XX | House building materials | 117·8 | 118·9 | 120·6 | 122·3 | 124·1 | 119·0 | 122·6 | 122·2 | 122·6 | 122·9 | 124·2 | 125·2 | 125·9 | 126·7 |

† Coal (except for carbonizing), gas and electricity. Crude oil and coal for carbonizing are included in basic materials.

## NOTES ON WHOLESALE PRICE INDEX NUMBERS

(1) Detailed notes on index numbers of wholesale prices are published in the annual article. They were last shown in the *Board of Trade Journal* of February 25, 1970.

(2) The index numbers are constructed on a net sector basis. That is to say, the price movements used to compile the index for a particular sector of industry are only those relating to transactions between that sector and other sectors. Transactions between undertakings in the same sector are excluded. Thus index numbers for the whole of manufacturing industry are not weighted averages of sector index numbers.

(3) Correspondence about wholesale price index numbers should be addressed to Statistics Division, Board of Trade, Room 620, Sanctuary Buildings, Great Smith Street, London, S.W.1. Telephone inquiries should be made to 01-222 7877, Ext. 3548, for index numbers, and Ext. 3411 for all other information.

(*Continued on page* 755)

# ELECTRICAL ENGINEERS EXHIBITION GUIDE

# ELECTREX '70

XV

INTERNATIONAL

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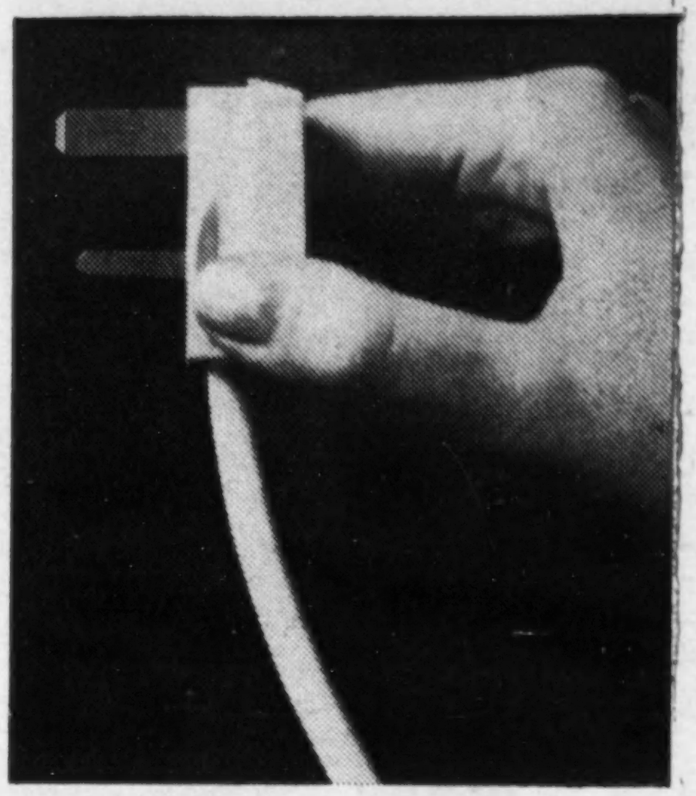
# *Britain's electrical industry on display*

**by George H. Parker, chairman, Electrex '70**

**Mr. Harold Lever, the Paymaster General, will officially open Electrex '70, the 15th International Electrical Engineers' Exhibition, at Earls Court, London on April 8. A preview of some of the highlights of this important event is contained in this supplement.**



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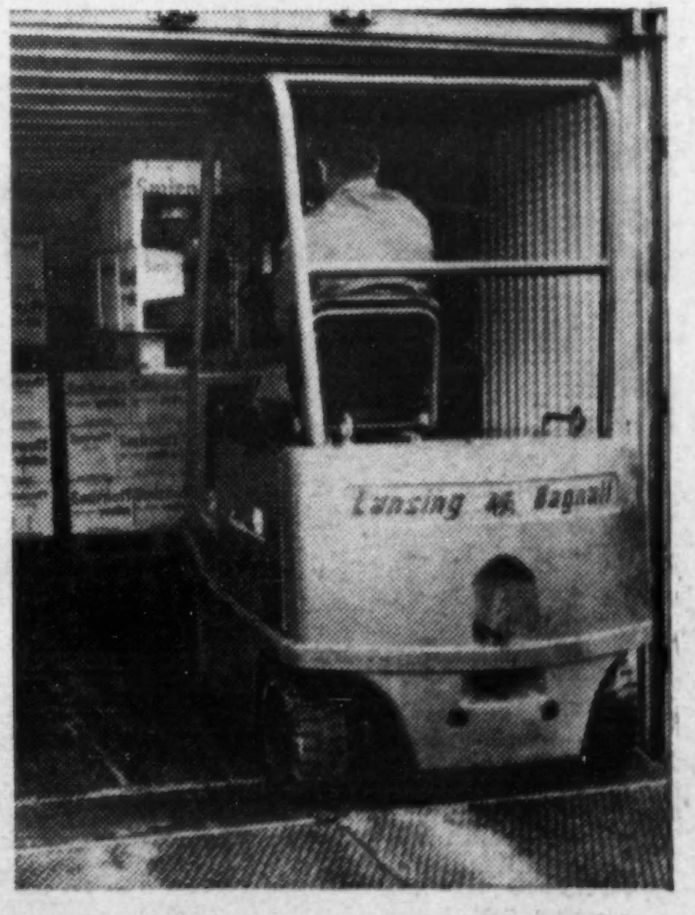
MINIATURE COMPONENTS go micro, micro components become micro-miniature, ratings go higher, temperatures go higher and lower, mechanical speed ranges are extended, electronic devices function at ever-rising phenomenal speeds – a state of technological development resulting very much in mini today, maxi tomorrow and paradoxically vice versa. All just too perplexing for today's electrical engineer. This coupled with the apparently endless plethora of technical information dispensed by numerous research bodies, tends to convince one that a two-year gap between comprehensive displays of up-to-date electrical plant equipment and appliances is all too long if the electrical entrepreneur is to keep abreast of modern techniques.

When the world's leading trade exhibition, devoted exclusively to everything interesting in the electrical and allied industries, opens on April 8 at Earls Court, London, researchers, designers, manufacturers, consultants and buyers from almost every country will be able to see what Britain's electrical industry has to offer the world.

For instance, in these days of ever-spiralling costs visitors concerned with the purchase of electric motors will find something really tangible to attract their attention – a significant reduction in the cost-per-horsepower as a result of savings effected from improved designs, the use of new materials and modern production techniques – in fact prices which are lower today in Britain than almost anywhere else in the world. A 15 per cent reduction in the sterling price of a typical 5 h.p. 1,500 r.p.m. machine in 1970 compares with 1952. Allowing for inflation over the same period, the pound sterling having dropped from 20s. to 11s. 3d., then the current price in real terms is just below 50 per cent of the 1952 figure.

Being an international exhibition, products from at least 53 exhibitors from 13 countries overseas will be displayed – Western Germany alone will be represented by 25 electrical manufacturers and companies.

Colouring the cosmopolitan atmosphere will be buyers from around 80 different countries – two months prior to opening confirmation has been given to the attendance of senior officials and delegations representing various electricity supply authorities from




*Some of the vehicles which will be featured in a special display of battery-operated vehicles under the auspices of the Electric Vehicle Association. From left to right: Conveyancer E22-24RC, Harbilt Electric's Model 916 cleansing vehicle; Lansing Bagnall FOER 9 'Container freight-loader'.*

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the Bahamas, Cyprus, Eire, Gibraltar, India, Israel, Malta, Pakistan, Portugal and South Africa. Executives with interests ranging from atomic energy to industrial electronics will be arriving from Belgium, India, Israel, Pakistan and South Africa.

Collaboration of the organizers with Thomas Cook and Sons Ltd. and British European Airways resulting in attractive package travel facilities will doubtless mean even more visitors from foreign parts than at any previous show.

With the products and services of 400 companies and organizations, covering an area of some 200,000 sq. ft. of space to date, the time spent at Electrex '70 should prove not only interesting but profitable. Many will find a valuable service available at the Overseas Reception Room: interpreters speaking 16 languages.

For those who are concerned with insulation, the British Electrical and Allied Manufacturers Association have promoted a three-day Electrical Insulation Conference in the Cromwell Hall. A comprehensive study of the development, testing and utilization of new materials and techniques used in such diverse applications as large turbo-generators to ceramic substrates for micro-electronic circuits and from polymeric insulants used at extremely high temperatures in the aircraft industry down to dielectrics at cryogenic levels. Papers will be by eminent authors of international repute in this specialized field.

Mr. Edward T. Judge, president-elect of the BEAMA, will open the conference.

A registration fee is payable for the complete session, including papers, luncheons, refreshments and a cocktail party at the Royal Lancaster Hotel. Whilst early registration is desirable, applications can be accepted up to exhibition opening day.

Under the auspices of the Electric Vehicle Association of Great Britain with the co-operation of the Society of Motor Manufacturers and Traders there will be a display of battery-operated vehicles. The exhibits will be grouped under two main headings. viz.: Road vehicles, which will include an ambulance, GPO van, street tidy, dairy vehicles, municipal vehicle, pedestrian-controlled vehicles, personnel carrier, mobile shop and a vehicle chassis. The second group will consist of industrial trucks will comprise a tractor, reach truck, fork-lift truck and pallet trucks.

Once again keen competition is anticipated for the silver plaques awarded for the best industrial exhibit and for the most meritorious exhibit in the domestic range. Supplementing these two awards in the 1970 exhibition will be a Class C category covering accessories and excess current protection devices limited to 100A maximum. The presentation of all awards in this competition will again be made at the opening luncheon and will provide useful publicity for the winners long after the exhibition closes.

## *An economic account of the electrical engineering industry*

THE GREATEST OPPORTUNITIES for the electrical engineering industry lie in designing, producing and marketing its goods to meet world demand. Though the United Kingdom market will continue to be of great importance to British manufacturers, by itself it is not enough. This is one of the conclusions arising from the recent detailed examination of the industry undertaken by the Economic Development Committee for the Electrical Engineering Industry in connection with the 'Economic Assessment'. ('Industrial Report by the Electrical Engineering EDC on the Task Ahead – Economic Assessment to 1972', free from NEDO). The chairman of the EDC is Sir Leslie Robinson.

The EDC is concerned with a wide range of electrical products including electricity generation, transmission and distribution equipment, electric motors and control gear, wires and cables, domestic appliances and some forms of electrical equipment are excluded since they come within the scope of other EDCs.

## *Electrical exports reach a new record*

**—BEAMA annual report**

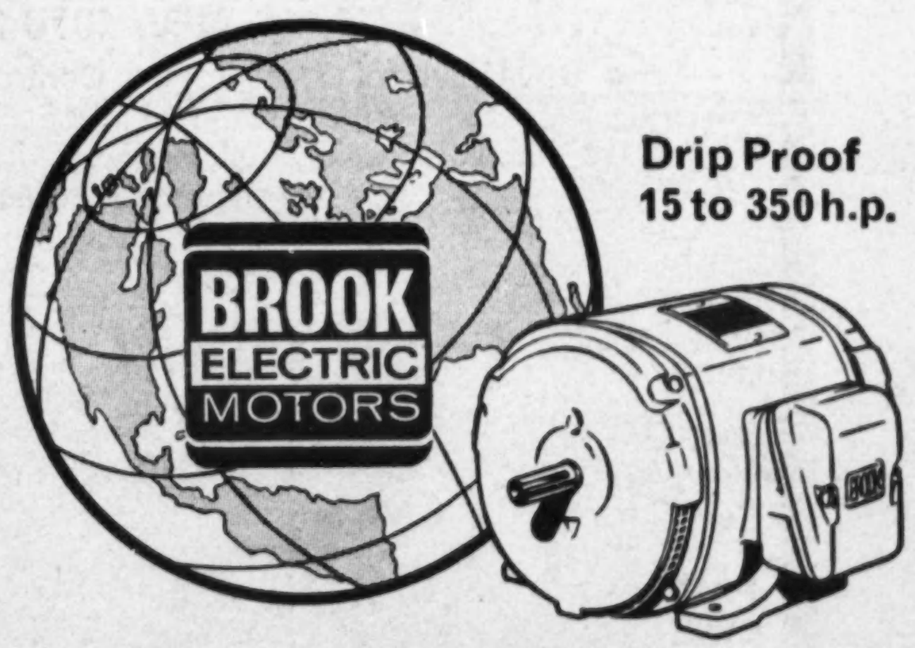
'EXPORTS OF ELECTRICAL AND allied engineering products reached a new record of £591 million,' said Mr. Stanley Steward, managing director of the British Electrical and Allied Manufacturers' Association, when he introduced the BEAMA annual report on March 11. Continuing, Mr. Steward said: 'The main feature of our trade was the expansion in electrical exports to Europe which showed an increase of no less than 35 per cent to the Common Market and 27 per cent to EFTA. There were also substantial gains in exports to Eastern Europe and to North America.

'Imports of electrical and allied products rose by £52 million to £397 million, a lower rate of increase than in previous years, with the result that the net balance of trade in Britain's favour improved from £171 million to £194 million.

'This export success is an indication of the improved competitive position of the British electrical industry and the tremendous drive which our manufacturers are making in export markets.'

Speaking of the negotiations for Britain's entry into the European Economic Community, Mr. Steward said: 'British electrical and electronics manufacturers have shown by their export achievements that they are fully competitive on the merits of their technology and their production efficiency, and provided that there is genuine equality of opportunity an enlarged Common Market will open up tremendous opportunities for our manufacturers.

'Britain's membership of the Common Market would lend greater emphasis to the advantages of merging or linking companies across national frontiers, as well as co-operation in research and technology on a European scale. This makes it vital for major sectors of British industry to be represented by strong trade associations which are as effective as their counterparts in Europe. The BEAMA'S membership of ORGALIME, the organization of European engineering trade associations is particularly important in this context.'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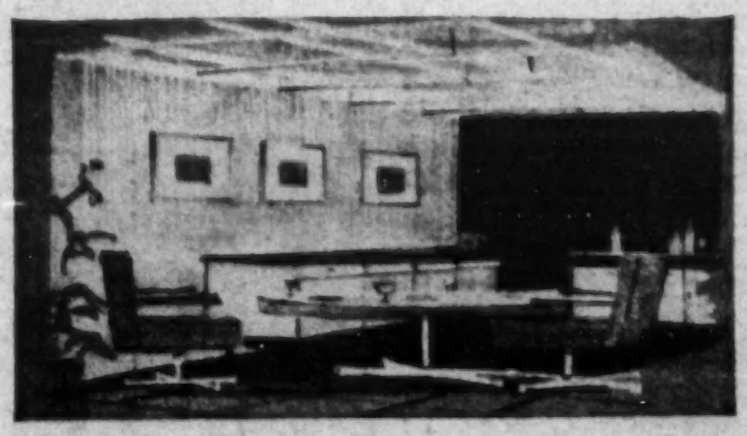

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# *Are you making the best use of Government Export Services?*

MOST MANUFACTURERS of electrical and electronic equipment – and particularly those who have established themselves in new markets in recent years – will already be aware of the wide range of services which is available free of charge from the Board of Trade's Export Services Division at Hillgate House, 35 Old Bailey, London, E.C.4, or from any of its Regional Office (See page vii for addresses). This Division, with others in the Board, has recently been reorganized to give improved service to industry in the competitive years ahead and for those manufacturers wishing to expand existing export markets or thinking of 'going into exports' for the first time, it now offers a unique and unrivalled service. This includes provision of market information and assessment, details of specific opportunities, of tariff and import regulations, help in finding an agent, with overseas visits, with status reports and on a very wide range of other problems which the exporter must expect to meet.

The service is extensive. The Division, through some 220 Embassy and Consular offices throughout the world, has as quick access to as much information about specific selling opportunities and the prospects of marketing any single – or bulk – items in the vast range of British electrical goods as any other body in the world. The new computerized Market Intelligence Service, which will begin operation before long, will ensure that this information comes from its point of origin anywhere in the world right to your desk within hours for the service is non-stop. A worldwide network of experienced commercial officers is constantly active on your behalf and will provide factual and up to date information on the market in which you are interested and much useful help on how to get into it.

Of all the problems facing the potential exporter perhaps overseas representation is the most vital for, unless this link in the selling chain is sound, exporting success will not come. If, for instance, you decide to appoint an agent this is one field especially where Export Services Division or its Regional Offices can help. You should write to them in the first instance with details of your requirements and if possible arrange to visit them so that they have the fullest information without which they cannot work. The Division or Regional Office, with your help, will then carefully prepare a brief about your product and your requirements which they will refer to the commercial officers in the countries where you and they consider there is the best export potential for your particular product.

The commercial officer's suggestions as to likely agents will be based on his personal knowledge and experience and, before advising you through the Board, he will already have approached them to establish interest in your product. The final decision must, of course, rest with you and in this, as in most contacts, the value of a personal visit and personal contact between you and your agent cannot be over-estimated.

If your selection of agent proves to be mutually beneficial do not neglect him. Give him the maximum amount of information and help on which he can sell; bring him to your works in Britain; above all, ensure that you or a responsible member of your staff keeps in constant personal contact with him so that any changes in product here or demand overseas can be instantly reflected. All this is not theory. The Board of Trade through its Export Services Division helps with this service as with many others as part of its every day task.

Below are some excerpts from letters received from electrical manufacturers who have found the Branch's assistance valuable.

'I returned this weekend from my business trip to South Africa and I wish to record immediately my sincere appreciation for the very high level of assistance and co-operation I received from all the British Government commercial officers throughout the

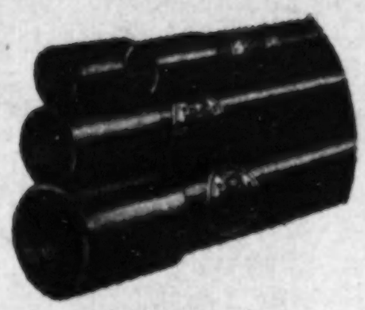
*Senior commercial diplomatic officers, members of an advanced commercial training course organized by the Export Promotion Department of the Foreign and Commonwealth Office, visited Mullard Ltd. recently. Left to right: Mr. P. G. A. Wakefield, Counsellor (Commercial) Tokyo (designate); Mr. F. Kennedy, Counsellor (Commercial) Istanbul (designate); Mr. P. Murray, Ambassador-designate (country yet to be announced); Mr. R. Walker, Counsellor (Commercial) Ankara (designate); Mr. R. E. Gamble, Counsellor (Commercial) Sydney (designate); Mr. R. Parry, Mullard Government Liaison Officer.*

# BARTON

ELECTRICAL INSTALLATION EQUIPMENT SPECIALISTS

**CONDUIT FITTINGS.** The most comprehensive standard fittings and accessories range. Over 200 types in up to eight standard sizes produced.

**CONDUIT TUBE.** Barton produce B.E.C.S.M. steel conduit to BSS.31 for all electrical installations. Safe, versatile, time tested, proven.



**DIVISION 2 CONDUIT FITTINGS.** Approved by H.M. Factory Inspectorate. Nine types Circular Junction Boxes. Ten sizes Adaptable Boxes. Full provision for mounting rails and terminal blocks.

**FLAMEPROOF (Series 51) CONDUIT FITTINGS.** Minister of Power Approval Certificate FLP.6043. Basic range of 49 FLAMEPROOF JUNCTION BOXES: Range permutates to about 1,000 types in ¾" and 1" E.T.

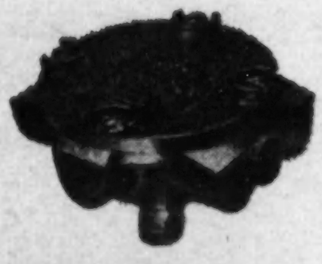
**BARTRUN TRUNKING.** Barton Cable Trunking and Fittings for complete cable protection and speedy installation. Trunking 1½" x 1½" up to 9" x 4" and fittings in twelve patterns.

**MAGNETICS.** The RICHARDSON Division of Barton produces to special requirement, Electric Lifts, Electromagnets, Magnetising Equipment and Magnetic Materials.

EARLS COURT
8 – 15 APRIL

ELECTREX '70

VISIT US ON
STAND FF1



ASK FOR LEAFLETS & PRICE LISTS
ON ANY OF THESE PRODUCTS.

# BARTON

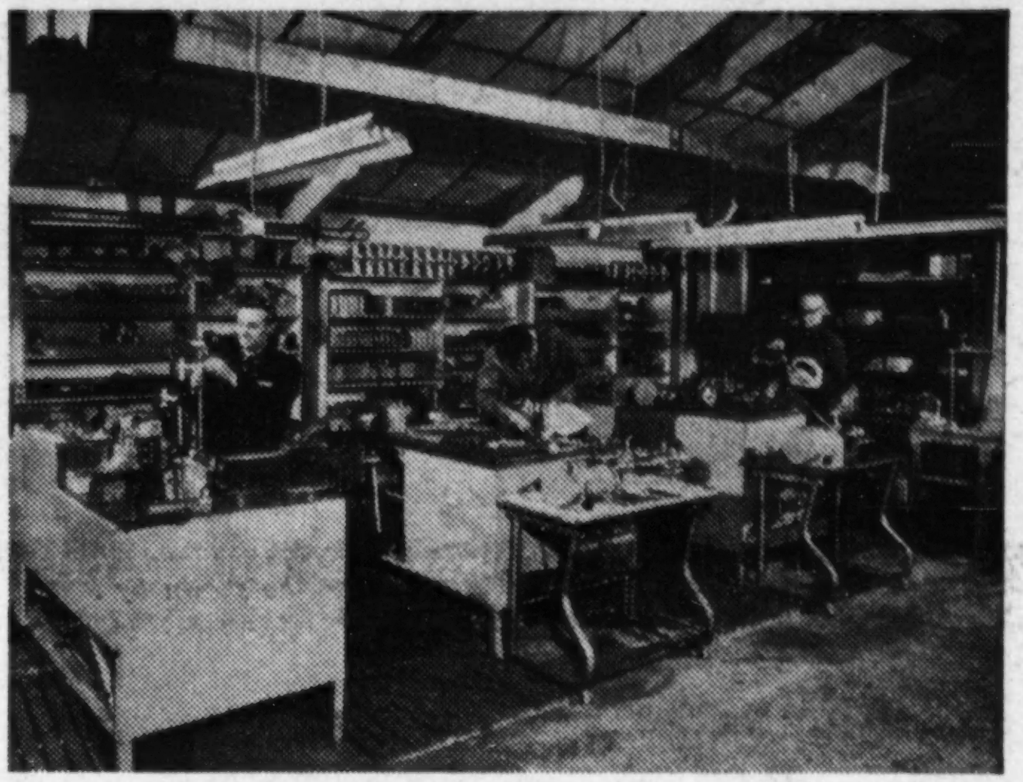
BARTON CONDUITS LIMITED
Old Birchills · Walsall · Staffs. Telephone · Walsall 26581 (10 lines)
Telephone Answering Walsall 26589 Telex 338282
*A member of the Barton Group of Companies.*

Republic who had obviously done a fair amount of homework in advance of my arrival and had set up for me very useful meetings. I think largely as a result of this local involvement I can record that my very short trip was a business success and that a firm order has already been received.'

'I would like to thank you personally for all the help you and your South American colleagues have given me in connection with my recent trip. My survey of the market is not yet complete but there does seem to be a useful potential in South America.'

'In addition to the agency inquiries with which you are assisting us we are hoping to take advantage of perhaps another one or two joint ventures during 1970. I plan to spend several days at the Hanover Trade Fair this time instead of my totally inadequate two days last year.'

'Our thanks for your continued efforts on our behalf and for the support of the various Embassy Commercial Departments who have been so helpful.'



*Exported to over 40 countries, the standard A1/X automatic coil winder produced by Kolectric Ltd., at their Southall works, are seen at an early stage of production. These and some of the latest sophisticated turret transfer coil winding equipment will be demonstrated at Earls Court.*

# EXPORT OPPORTUNITIES FOR ELECTRICAL MANUFACTURERS

THESE CURRENT export opportunities for electrical manufacturers are afew examples of the many which are published regularly in the *Export Service Bulletin.*

**ARGENTINA**
ESB 53123/70
Insulating switches
Tender – Closing date April 3, 1970

**AUSTRALIA**
ESB 53066/70
Circuit breakers
Tender – Closing date April 8, 1970

**AUSTRALIA**
ESB 53059/70
Transformers
Tender - Closing date April 2, 1970

**COSTA RICA**
ESB 53118/70
Transformers and accessories
Tender – Closing date April 3, 1970

**DENMARK**
ESB 5351/70
Electrical appliances; lighting components
Agency inquiry

**FEDERAL REPUBLIC OF GERMANY**
ESB 4395/70
Electric light fittings
Agency inquiry

**FEDERAL REPUBLIC OF GERMANY**
ESB 46420/69
Electrical components
Source of supply inquiry

**ICELAND**
ESB 5171/70
Sleeve-bearing electric motors

**ISRAEL**
ESB 5355/70
Electric timers; mercury lamps; theatre lamps
Agency inquiry

**ISRAEL**
ESB 5493/70
Electrical control equipment
Agency inquiry

**ISRAEL**
ESB 4823/70
Generating sets
Agency inquiry

**ITALY**
ESB 5964/70
Insulators
Source of supply inquiry

**ITALY**
ESB 5742/70
Cable (electrical copper core)
Source of supply inquiry

**JORDAN**
ESB 51736/70
Transformers
Tender – Closing date April 4, 1970

**MALAYSIA**
ESB 2197/70
Electrical switches; sodium globe lights
Agency inquiry

**MALAYSIA**
ESB 53019/70
Generating set
Tender – Closing date April 10, 1970

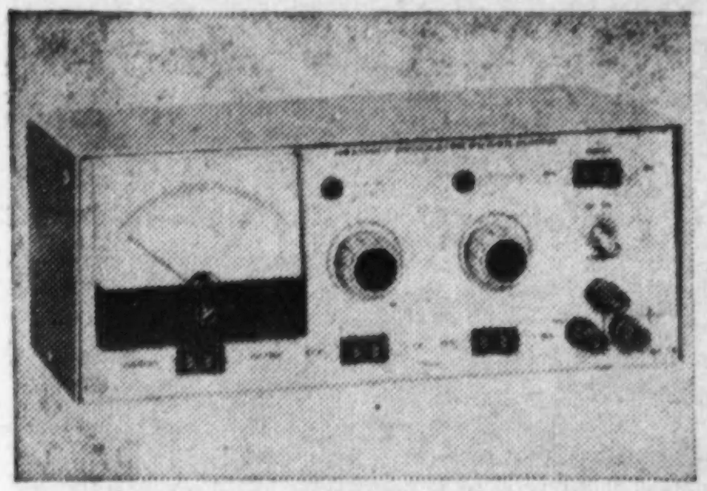
**NEW ZEALAND**
ESB 52976/70
Cable
Tender – Closing date April 14, 1970

**SWITZERLAND**
ESB 26627/69
Insulated wire
Agency inquiry

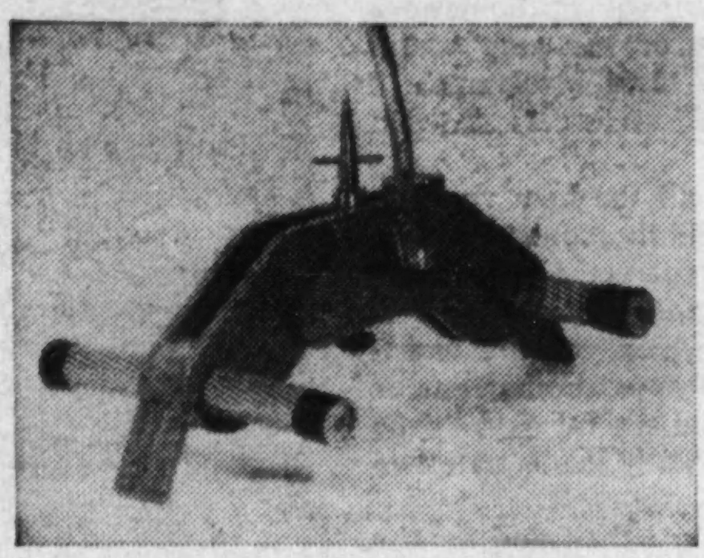
**SWITZERLAND**
ESB 5130/70
Closed circuit TV sets
Source of supply inquiry

**UNITED STATES**
ESB 52723/70
Switchgear; control centres and distribution panel boards
Tender – Closing date unknown

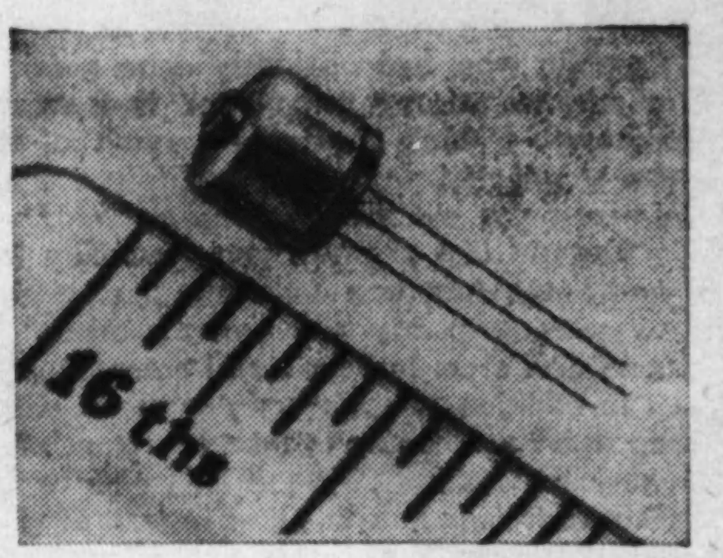
**UNITED STATES**
ESB 5333/70
Electric motors
Source of supply inquiry



*Heathkit regulated power supply.*



*Twin conductor clamp for overhead wires to be shown by P & B Engineering Co.*




*The new range of Painton adjustable potentiometers, is the single turn ¼in. type 412 Certrim. Termination is by printed circuit pins. Mechanical movement is by: screwdriver slot adjustment with a slipping clutch to prevent damage by overwinding.*

# *Around the stands . . . .*

**A selection of some items of interest at Electrex '70**

The Power Sources Division of **Alkaline Batteries Ltd.** (*Stand G6*) will be showing completely new ranges of Alcad nickel cadmium batteries.

The larger types of battery for industrial use embody pocket plate construction. These are now manufactured in three versions: E and EP type cells for emergency lighting, switch tripping and other duties where the battery normally floats across a constant voltage supply; XL, DL and LP cells for applications such as engine starting, switch closing and short period emergency lighting where high rate performance is the main factor determining the choice of battery; RVH and PSV cells for applications where the cells are subject to frequent deep discharge. All three types are now available with a choice of steel or plastic containers. On display for the first time at Electrex '70 will be sealed rechargeable batteries of rectangular configuration embodying pocket plate construction and a full range of Alcad cylindrical sintered plate cells and battery packs of increased ampere hour capacity.

In addition to a wide range of motor starters and control accessories for all branches of industry, **Allen West (Brighton) Ltd.** (*Stand L8*) will be displaying sections of a typical grouped starter board – standard and custom-built – together with examples of both 'Minitactor' and 'Minipump' control centres.

Crane control equipment will also be featured including both main current and master controllers, and a seated control unit with readily removable cams. A composite control panel for use on pendant pushbutton-operated cranes will also be displayed.

Allen West exhibits will include high voltage contactor equipment, oil-immersed switchgear and solid-state controls. A number of new products will be introduced including the com-

VISIT STAND L9 TO SEE

THE NORMAND ELECTRICAL GROUP OF COMPANIES

WALTON ROAD EASTERN ROAD COSHAM HANTS PO6 1SZ Tel: COSHAM 71711 Telex 86149

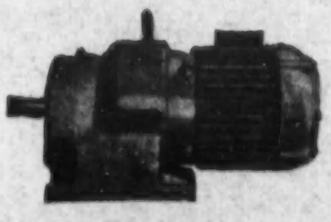
NORMAND ELECTRICAL CO. LTD.

ELECTRIC MOTORS

GEARED MOTORS

MAGNETIC BRAKES

SPEED REDUCERS



FRACTIONAL H.P. MOTORS LIMITED

FRACTIONAL H.P.

ELECTRIC MOTORS

GEARED MOTORS

MILLMARSH LANE BRIMSDOWN

ENFIELD MIDDX TEL: 01-804 4775

NECO

NECO ELECTRONICS (EUROPE) LTD

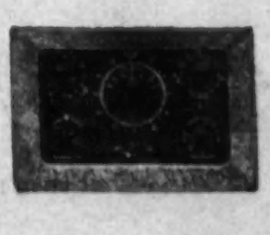
SPEED CONTROLLERS

SPEED INDICATORS

TACHOGENERATORS

REVEVERSER for D.C. Thyristor controlled motors

NECO MARINE LIMITED



AUTOMATIC PILOTS

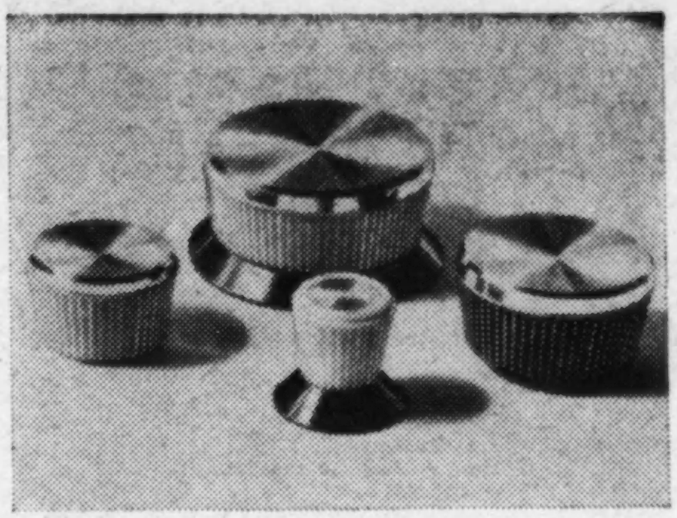
REPEATER COMPASS

ELECTRIC CAPSTANS

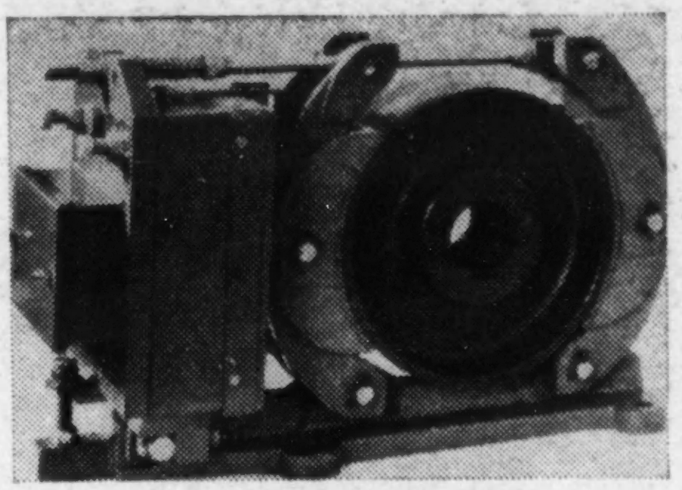
DAVIT HOISTS

ANCHOR WINDLASSES

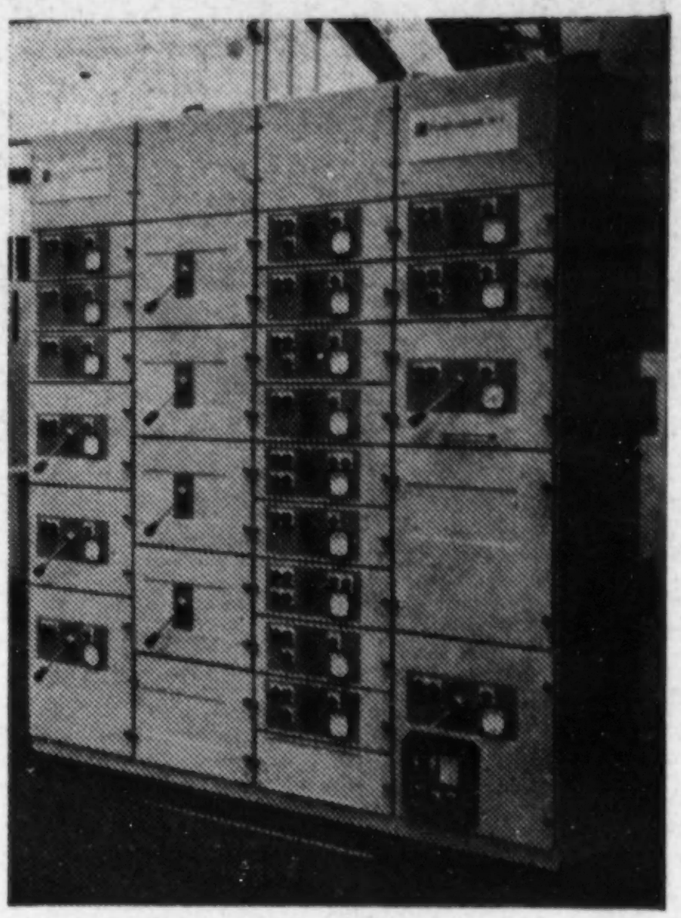
INDICATORS FOR ENGINE SPEED, BATTERY STATE PROPELLER PITCH & RUDDER ANGLE



*New range of instrument knobs which will be introduced by Frederick W. Evans at Electrex. The knobs are available in metric sizes for export.*



*Elliston, Evans and Jackson will show their Type ZA and ZO spring-applied, electrically-released 'Fail-safe' electro-mechanical brakes.*



*A typical rear-access four-section Centaur control board made by Laurence, Scott and Electromotors Ltd. for a multi-motor direct-line starting complex in a large modern chemical plant. The equipment incorporated includes (extreme left) hinged starters rated at 0-17½ hp, 50 hp, and 125 hp; (left centre) 250A distribution fuse-switches; (right centre) 0-17½ hp draw-out starters; and (bottom right) a 50 hp starter incorporating additional and special overload and earth-leakage protection.*

pany's new withdrawable multi-starter switchboard known as Concept 75; a range of low-cost AutoWest starters; U00 contactors using the same magnet system as the well-proven type URA2 contactors which they replace; and a completely new range of direct-on, reversing, star-delta, auto-transformer and stator-rotor starters for 50 hp or up to 225 hp duties.

Member companies of the Allen West group will be represented on the same stand.

**Barton Conduits Ltd.** (*Stand FF*1) has been producing conduit tube and a standard range of conduit fittings for many years and claim to be one of the principal exporters of these products. The company will be displaying a standard range of electrical conduit tube and conduit fittings. New products to be shown are Flameproof and Division 2 conduit fittings (in particular circular junction and adaptable boxes) introduced in recent months. These new products, says the company, are being exported in increasingly large quantities.

**British Physical Laboratories** (*Stand G*429), designers and manufacturers of electronic test equipment and panel meters, will be displaying a full range of their latest products. Due to many new items having been added to the range, a large stand has been taken.

The most exciting new instrument development, to be shown in public for the first time at the 1970 Show, is BPL's new solid-state IC megohmmeter, which will cover resistance

(*Continued on page xii*)

**STERLING CABLE COMPANY LIMITED** welcome you to their **STAND No. F12** at the **ELECTREX '70 Exhibition.**

We are showing some of the many thousand different cables we have made for ships, refineries, power stations and chemical plants throughout the world since the last exhibition.

Power cable engineers will be interested in Sterling 'Poly-X-Link'* high voltage power cables.

- Thermocouple extension cables from single pair upwards
- Electric cables with tubes for water, oil, beer as well as conductors
- Composite electronic cables
- Buoyant and underwater electric cables for oceanology
- Aerial electric cables with built in catenary
- Trailing electric cables for mobile equipment
- Cable glands and other accessories
- Paper insulated power cables
- Pulse cables for nuclear and medical research
- Electric cables for airfield lighting

etc. etc. etc.

*Registered

STERLING

**Sterling Cable Company Limited, Bath Road, Aldermaston, Reading RG7 5QD.**
Telephone: Woolhampton 3221 (STD: 07-3521-3221) Telex: 84137
STAND Telephone: 01-371-7627

# ELECT

## 15th International Electrical Engineers (A.S

### A

| | |
|---|---|
| A4 | AEG (Great Britain) Ltd. |
| F10 | AEI Cables Ltd. (Power Cables Division) |
| F10 | AEI Semiconductors Ltd. |
| E9/E10 | Aberdare Cables Ltd. |
| E9/E10 | Aberdare Holdings Ltd. |
| G12 | AC-Delco Division of General Motors Ltd. |
| L11 | Adams & Westlake Co. |
| K21 | Adastra (Division of C.U. Ltd.) |
| C5 | Aerialite Ltd. |
| J5 | Albright (Engineers) Ltd. |
| J5 | Albright Engineers (Export) Ltd. |
| F13 | Alcan |
| F13 | Alcan Castings and Forgings Ltd. |
| F13 | Alcan Castings and Forgings Ltd. (Overhead Line Fittings Division) |
| F13 | Alcan Foils Limited |
| F13 | Alcan Industries Limited |
| F13 | Alcan (U.K.) Limited |
| G6 | Alkaline Batteries Ltd. |
| L12 | Allen Bennett Ltd. |
| B6 | Allen-Bradley U.K. Ltd. |
| L8 | Allen West (Brighton) Ltd. |
| H15 | Aluminium Wire & Cable Co. Ltd. |
| H14 | Amphenol Ltd. |
| H14 | Amphenol G.m.b.H. |
| EE3 | Appleby, H. & L., Ltd. |
| LIA | Appliance Components Ltd. |
| L7 | Arclex Ltd. |
| M8 | Arnold, Edward (Publishers) Ltd. |
| BI | Arrow Electric Switches Ltd. |
| H16 | Ashley Accessories Ltd. |
| J12 | Asquith Electrics (Colne) Ltd. |
| F10 | Associated Automation Ltd. |
| M8 | Associated Book Publishers Ltd. |
| AA7 | Association of Supervisory and Executive Engineers |
| H16 | Astral Switchgear Ltd. |
| DI | Aumann, Willy, KG. |
| L1 | Automation Ltd. |
| J14 | Avo Ltd. |
| J14 | Avo International Ltd. |

### B

| | |
|---|---|
| RR3 | BBI Lighting (Felden Tridonic Ltd.) |
| E8 | BICC-Burndy Ltd. |
| OO5A | B.I.P. Chemicals Ltd. |
| G7 | B.K.B. Electric Motors Ltd. |
| J11 | B. & R. Coil Winding Equipment Ltd. |
| L11 | B. & R. Relays Ltd. |
| G15 | Backer Electric Co. Ltd. |
| K10 | Baldwin & Francis Ltd. |
| J20 | Baldwin, H. J., & Co. Ltd. |
| G6 | Bardic Systems Ltd. |
| K11 | Barker & Allen Ltd. |
| GG7 | Barnard, A. W., Ltd. |
| FF1 | Barton Conduits Ltd. |
| EE8 | Bastat Automation Ltd. |
| EE8 | Bastat Electrical Equipment Ltd. |
| D1 | Beck, Dr., & Co. Ltd. |
| N5 | Beckett & Parker Ltd. |
| M10/L7 | Belmos Peebles Ltd. |
| L11 | Benedict and Jager |
| E1 | Benn Brothers Ltd. |
| L12 | Bennett, Allen, Ltd. |
| E5 | Berco Controls Ltd. |
| B4 | Bill Switchgear Ltd. |
| M8 | Blackie & Son Ltd. |
| J15 | Blackwell, F. C., & Co. Ltd. |
| J11 | Blume & Redecker G.m.b.H. |
| NN3B | Bohnenblust & Dietrich |
| J16 | Bolton, Thomas, & Sons Ltd. |
| NN1 | Bondina Ltd. |
| EE10 | Borg-Warner Controls, Division of Borg-Warner Ltd. |
| NN3B | Bourgeois, Ste. R., & Cie. |
| GG7 | Bowden Bros., Ltd. |
| C6 | Bowthorpe Electric |
| C6 | Bowthorpe-Hellermann Ltd. |
| C6 | Bowthorpe Line Equipment |
| G14 | Bray, Geo., & Co. Ltd. |
| K3 | British Aluminium Co. Ltd., The |
| H4 | British Central Electrical Co. Ltd. |
| E8 | British Insulated Callender's Cables Ltd. |
| J14 | Brookhirst Igranic Ltd. |
| K14 | Brook Motors Ltd. |
| H21 | Brown-Boveri & Co. Ltd. |
| H11 | Browning's Electric Co. Ltd. |
| M10/L7 | Bruce Peebles Industries Ltd. |
| AA5 | Brunel University |
| F9 | Brush Electrical Engineering Co. Ltd. |
| G7 | Bulpitt & Sons Ltd. |
| M10/L7 | Busing Co. Ltd., The |

### C

| | |
|---|---|
| GG4 | C.C.L. Systems Limited |
| QQ2 | C.G.S. Resistance Co. Ltd., The |
| J25 | CIBA (A.R.L.) Ltd. |
| NN8 | C.M.P. Glands Ltd. |
| RR1 | C.T.L. Components Ltd. |
| K21 | C.U. Ltd. |
| M8 | Cambridge University Press |
| E15 | Carborundum Co. Ltd., The |
| L1 | Challis, Henry, Ltd. |
| DD5A | Chidlow, E., & Co. Ltd. |
| K4 | Chloride-Tudor Batteries (Division of Electric Power Storage Ltd.) |
| QQ5B | Christy Bros. Ltd. |
| AA9 | City and Guilds of London Institute |
| J23 | Clang Ltd. |
| K7 | Clarke (Electrical) Co. Ltd. |
| J1 | Clarke, H., & Co. (Manchester) Ltd. |
| H1 | Clare Instrument Co. |
| RR4 | Coil Winding Equipment Co. |
| D1 | Cole Electronics Ltd. |
| H4 | Cometa S.A.R.L. |
| F7 | Comite Permanent des Foires et Manifestations Economiques a L'Etranger |
| H21 | Compagnie Electro-Mecanique |
| F7 | Compagnie Generale d'Electricite-C.G.E. |
| RR6 | Concordia Electric Wire & Cable Co., The |
| GG7 | Connaught-Contractors (Send) Ltd. |
| F3 | Connollys (Blackley) Ltd. |
| F7 | Constructions Electriques R.S. |
| K19 | Contactum Ltd. |
| DD1 | Cosford Transformers Ltd. |
| M15 | Courtney, Pope (Electrical) Ltd. |
| H12 | Crabtree, J. A., & Co. Ltd. |
| SS3 | Craig & Derricott Ltd. |
| SS4 | Critchley Bros. Ltd. |
| F9 | Crompton Parkinson Ltd. |
| G10 | Cross, Malcolm, Ltd. |
| NN10 | Crouzet England Ltd. |
| NN10 | Crouzet France Ltd. |
| NN10 | Crouzet Italy Ltd. |
| NN10 | Crouzet Spain Ltd. |
| DD3 | Croydon Engineering Company Limited, The |

### D

| | |
|---|---|
| C5 | D.R. Illuminations Ltd. |
| HH5 | Dale Electric of Great Britain Ltd. |
| HH5 | Dale Electric Welders Ltd. |
| H10 | Danfoss (London) Ltd. |
| G4 | Davis Trunking Ltd. |
| QQ5A | Daystrom Ltd. |
| F7 | Delle Alsthom |
| J8 | Delta Controls Ltd. |
| K11 | Delta Metal Co. Ltd., The |
| CC3 | Delway Products Ltd. |
| CC4 | Demag Material Handling Ltd. |
| H3 | Dennis, G. P., Ltd. |
| DD7 | Dom Holdings Ltd. |
| K6 | Dubilier Condenser Co. (1925) Ltd. |
| J24 | Durrwachter-Doduco-KG., Dr. E. |

### E

| | |
|---|---|
| CG2 | E.C.C. (Moulded Breakers) Ltd. |
| C6 | EMP Electric |
| G10 | E.M.S. Electrical Products Ltd. |
| A5 | Eden Fisher & Hirst (Microwave) Heating Ltd. |
| M10/L7 | Edgcumbe Peebles Ltd. |
| H7 | Egatube Ltd. |
| L12 | Elan Schaltelemente GmbH. |
| CC5 | Eldon AB |
| CC5 | Eldon GmbH |
| CC5 | Eldon Electric Ltd. |
| E9/E10 | Electric Construction Co. Ltd. |
| K4 | Electric Power Storage Ltd. (Chloride-Tudor Division) |
| H4 | Electric Production (Diruptor) et Cie. |
| HH10 | Electric Vehicle Association of Great Britain Ltd., |
| GG1 | Electric Windings (Havering) Ltd. |
| GG1 | Electric Windings (London) Ltd. |
| L8 | Electrical Apparatus Co. Ltd., The |
| AA2 | Electrical Association for Women |
| AA8 | Electrical and Electronic Industries Benevolent Association |
| AA3 | Electrical, Electronic and Telecommunication Union/ Plumbing Trades Union |
| E1 | Electrical and Electronics Trades Directory (Benn Brothers Ltd.) |
| SS1 | Electrical Equipment (Shaw Publishing Company Ltd.) |
| H2 | Electrical Remote Control Co. Ltd. |
| C3 | Electrical Research Association |
| A1 | Electrical Review |
| A1 | Electrical Times |
| B3 | Electricity Council, The |
| B3 | Electricity Boards of England and Wales |
| NN3a | Electro Carbon Ltd. |
| L2 | Electroimpex Co. Ltd. |
| L6 | Electro-Mechanical Manufacturing Co. Ltd. |
| SS1 | Electronic Equipment News (Shaw Publishing Company Ltd.) |
| PP6 | Electrotechnic (Northern) Ltd. |
| J19 | Elektrim, Foreign Trade Company |
| DD2 | Elektrisola |
| D7 | Ellison, George, Ltd. |
| PP7 | Elliston, Evans & Jackson Ltd. |
| H2 | Elremco Sales Ltd. |
| H19 | Elremco Electrical Remote Control Co. Ltd. |
| K11 | Enfield Phelps Dodge Ltd. |
| K11 | Enfield Rolling Mills (Aluminium) Ltd. |
| K11 | Enfield Rolling Mills (Cables Accessories) Ltd. |
| K11 | Enfield Rolling Mills Ltd., Rod Mill and Drawn Wires |
| K11 | Enfield Rolling Mills Ltd. Drawn Metals |
| F10 | English Electric-AEI Industrial Controls Ltd. |
| F10 | English Electric-AEI Machines Ltd. |
| F10 | English Electric-AEI Traction Ltd. |
| F10 | English Electric-AEI Turbine Generators Ltd. |
| F10 | English Electric D.C. Transmission Division |
| F10 | English Electric Fusegear Ltd. |
| F10 | English Electric Hewittic Rectifiers Ltd. |
| F7/H14 | Entrelec |
| H2 | Equipment & Services Ltd. |
| K20 | Erma Ltd. |
| E9/E10 | Erskine, Heap & Co. Ltd. |
| HH5 | Erskine Laboratories Ltd. |
| PP4 | Esgo Plastics Machinery Ltd. |
| EE1 | Evans, Frederick W., Ltd. |
| H20 | Evershed & Vignoles Ltd. |
| CC8 | Exico Ltd. |

### F

| | |
|---|---|
| QQ2 | Fagor Electrotechnica S.C.I. |
| GG2 | Federal Electric Ltd. |
| RR3 | Felden Tridonic Ltd. |
| HH9 | Field & Grant Ltd. |
| RR5 | Fletcher Sutcliffe Wild Limited |
| H5 | Foster Transformers Ltd. |
| L9 | Fractional HP Motors Ltd. |
| FF4 | French, Thomas, & Sons (Electrical) Ltd. |
| G5 | Friedland, V. & E., Ltd. |
| RR5 | Furse, W. J., & Co. Ltd. |

### G

| | |
|---|---|
| M14 | GEC Electrical Components Ltd. |
| F10 | GEC-Henley Ltd. |
| M14 | GEC Measurement Ltd. |
| F10 | GEC Switchgear Ltd. |
| F10 | GEC Transformers Ltd. |
| F10 | General Electric and English Electric Companies Ltd., The |
| F14 | Gent & Co. Ltd. |
| M16 | Gibson Todd & Co. Ltd |
| GG5 | Gilflex Conduits Ltd. |
| L11 | Gordos Corporation |
| CC6 | Grawater Ltd. |
| HH6 | Greengate Cables Ltd. |
| M8 | Griffin, Charles, & Co. Ltd. |

### H

| | |
|---|---|
| K7 | H.H. Electrical (London) Ltd. |
| L8 | Hackbridge Faraday Electrics Ltd. |
| N3 | Haffenden, W. W., Ltd. |
| J24 | Harding, J. M. (Worthing) Ltd. |
| DD5 | Harland Simon Ltd. |
| M8 | Harrap, George G., Ltd. |
| CC1 | Harrison, A. T. & Co. (Mouldings) Ltd. |
| F8 | Harvey Hubbell Ltd. |
| EE5 | Hawke Cable Glands Ltd. |
| F9 | Hawker Siddeley Electric Ltd. |
| F9 | Hawker Siddeley Power Transformers Ltd. |
| E3 | Heatrae Ltd. |
| E3 | Heatrod Elements Ltd. |
| B2 | Heayberd, F. C., & Co. Ltd. |
| J3 | Hedin Heat Ltd. |
| C6 | Hellermann Deutsch |
| C6 | Hellermann Electric |
| C6 | Hellermann-Brady (Associate Company) |
| FF7 | Herbert Controls & Instruments Ltd. |
| EE2 | Highland Electronics Ltd. |
| J6 | Hilmor Ltd. |
| OO2 | Hird-Brown Ltd. |
| A5 | Hirst Electric Industries Ltd. |
| A5 | Hirst Microwave Industries Ltd. |
| A5 | Hirst Welding Rectifiers Ltd. |
| RR2 | Holme, Edward, & Co. (1931) Ltd. |
| L5 | Honeywell Ltd. Micro Switch & Keyboard Group |
| OO5b | Horstmann Gear Co. Ltd., The |
| LL5 | Hunt, A. H. (Capacitors) Ltd. |

### I

| | |
|---|---|
| NN7A | I.E.S. (L'Industrie Electrique de la Seine) |
| A1 | IPC Electrical-Electronic Press Ltd. |
| F15 | Imperial-Chemical Industries Ltd. (Plastics Division) |
| AA8 | Institution of Electrical Engineers |
| L7 | International Research & Development Co. Ltd. |
| N1 | International Time Recording Co. Ltd. |
| J24 | Isola Werke AG |
| E2 | Isopad Ltd. |

# TREX '70

## E.E.) Exhibition. List of Exhibitors for 1970

### J

EE4 J.D. Electronics Ltd.
OO3 Jagor Interlectric Ltd.
PP1 Jautz, Karl, GmbH
K11 Johnson & Phillips (Capacitors) Ltd.

### K

PP2 KMG Service & Construction Ltd.
MM5 Kalle Aktiengesellschaft
MM5 Kalle (UK) Ltd.
NN3b Kautt & Bux OHG
NN3b Kautt & Bux (UK) Ltd.
EE9 Kempston Electrical Co. Ltd.
PP9 Key Terrain Ltd.
D2 Kimberly-Clark Ltd.
F16 Klaxon Ltd.
G1 Klippon-Electricals Ltd.
KK4 Klockner-Moeller Ltd.
RR4 Kolectric Ltd.
K17 Kraus & Naimer GmbH
D1 Kumag A. G.

### L

D8 Langley London Ltd.
M11 Laurence Scott & Electromotors Ltd.
J21 Lebret Engineering Ltd.
J24 Leonische Drahtwerke AG
FF6 Leroy Electric Motors Ltd.
J7 Lewden Metal Products Ltd.
K1 Light & Power Accessories Co. Ltd., The
E9/E10 Linegear Ltd.
GG8 Litlex
F4 Lloyds Bank Ltd.
NN2 Lock, A.M., & Co. Ltd.
CC2 Logan, Walter, & Co. Ltd.
M14 Londex Ltd.
J27 London Telecommunications Region, G.P.O.
M16 Long & Crawford Ltd.
M8 Longmans, Green & Co. Ltd.
E3 Low, Duncan, Ltd.
GG1 Loxford Transformers Ltd
J24 Lutz & Co.
K2 Lyons, Claude, Ltd.

### M

CC8 MEZ Electric Motors
F11 MK Electric Ltd.
PP2 M. & P. Fluorescent Fittings Ltd.
E12 MTE-Contactor Ltd.
E12 MTE-Contactor (Components) Ltd.
E12 MTE-Contactor (Engineering Services) Ltd.
E12 MTE-Contactor (Electronic Devices) Ltd.
E12 MTE-Contactor (Systems) Ltd.
M8 Macdonald & Co. (Publishers) Ltd.
K15 McGeoch, Wm., & Co. (Birmingham) Ltd.
K15 McGeoch, Wm., & Co. (Northern) Ltd.
M8 Machinery Publishing Co. Ltd., The
M8 Maclaren & Sons Ltd.
M8 Macmillan & Co. Ltd.
K15 Macphail, J. S., Ltd.
J22 Magneta (B.V.C.) Ltd.
FF5a Magnetic & Electrical Alloys Ltd.
K18 Magrini M.S.M., S.p.A.
J17 Mantel Metalworkers Ltd.
L1 Marbaix, Gaston E., Ltd.
H4 Marechal et Cie, S.A.
NN7 Martin & Lunel
J13 Mather & Platt Ltd.
J11 Merz, Gustav, Schaltgerätefabrik
K11 Metal Contours Ltd.
G11 Metway Electrical Industries Ltd.
K16 Metzenauer & Jung GmbH
F10 Micanite & Insulators Co. Ltd., The
DD6 Midland Dynamo Co. Ltd., The
C4 Midland Electric Manufacturing Co. Ltd.
RR4 Midland Engineering & Machine Co. (UK) Ltd.
QQ9 Ministry of Defence: Army
PP11 Ministry of Defence: Royal Navy
H8 Minnesota Mining & Manufacturing Co. Ltd. (3M Company)
F9 Morecambe Electrical Equipment Co. Ltd.
EE10 Morse Chain, Division of Borg-Warner Ltd.
M13 Mullard Ltd.
H18 Mycalex & Rosite Ltd.

### N

L7 Nalder Bros. & Thompson Ltd.
AA1 National Inspection Council for Electrical Installation Contracting
QQ6 National Westminster Bank Ltd.
L9 Neco Electronics (Europe) Ltd.
L9 Neco Europa N.V.
L9 Neco Geared Motors Ltd.
L9 Neco Marine Ltd.
M8 Nelson, T., & Sons Ltd.
C5 Nettle Accessories Ltd.
H9 Newage Lyon Ltd.
MM8 Nobrac Carbon Ltd.
J19 Norco Electrics Ltd.
L9 Normand Electrical Co. Ltd.

### O

MM8 Offord-Seebright Ltd
J18 Oldham & Son Ltd.
F10 Osram (GEC) Ltd.
A4 Osram GmbH
D5/6 Ottermill Group
D5/6 Ottermill Chilton Ltd.
D5/6 Ottermill Engineering Ltd.
D5/6 Ottermill Products Ltd.
D5/6 Ottermill Switchgear Ltd.
F13 Overhead Line Fittings Ltd.
H4 Oy Fiskars A.B.

### P

c14 P. & B. Engineering Co. Ltd.
M5 Painton & Co. Ltd.
L7 Parsons, C. A., Co. Ltd.
L7 Parsons Peebles Ltd.
M10 Parson Peebles Distribution Transformers Ltd.
G2 Partridge Wilson & Co. Ltd.
FF5 Parvalux Electric Motors Ltd.
M8 Penguin Books Ltd.
C8 Peppers of Woking Ltd.
AA11 Pergamon Press Ltd.
FF2 Perkins, John M., & Smith Ltd.
OO4 Perma Rubber Co. Ltd.
K9 Permali Ltd.
K21 Phosco Ltd.
M8 Pitman, Sir Isaac, & Sons Ltd.
J26 Plastic Dip Mouldings Ltd.
F17 Plus Lighting Ltd.
RR1 Pohl, Hermann
J15 Power Centre Co, Ltd., The
C8 Power Connectors Ltd.
CC7 Preformed Line Products (GB) Ltd.
L8 Process Control Gear Ltd.
M8 Publishers Association, The
G9 Pyrotenax Ltd

### R

QQ9 R.E.M.E.
RR4 R.M.T.
C7 Rawlplug Co. Ltd., The
DD8 Raychem Ltd.
H6 Redman Broughton Ltd.
H6 Redman Heenan Froude Ltd.
D4 Relite Electric Ltd.
D1 Reutlinger-Losenhausen GmbH
L7/M10 Reyrolle, A., & Co. Ltd.
L7/M10 Reyrolle Parsons Ltd.
L7 Reyrolle Parsons Automation Ltd.
DD2 Rheinische Feindraht-Industrie
NN3A Rheinische Kohleburstenfabrik Franz Wenzel K.G.
G13 Rist's Wires & Cables Ltd.
K6a Robinson, D., & Co. Ltd.
LL5 Robinson, F. C., & Partners Ltd
H18 Rosite Ltd.
E4 Ross, Courtney & Co. Ltd.
GG7 Rotaire Driers Ltd.
D1 Rotary Electric Co. Ltd.
C2 Rotawinder Ltd.
M4 Rotunda Ltd.
M12 Rowlands Electrical Accessories Ltd.
PP11 Royal Navy
QQ9 Royal Signals
D1 Ruff, Herbert, K.G.
M7 Russell Wilfred (Wolverhampton) Ltd

### S

FF5 S. & C. Commutators Ltd.
K5 S.S.I. Fix Equipment Ltd.
M14 Salford Electrical Instruments Ltd.
RR5 Sandiacre Electrics Ltd.
G8 Santon Ltd.
EE4 Savage Transformers Ltd.
H19 Schiele Industriewerke K.G.
RR1 Schiffman, A.
E7 Scholes, George H., & Co. Ltd.
D1 Schuemann, Heinrich
PP5 Scott, Geo. L., & Co. Ltd.
SS1 Shaw Publishing Co. Ltd.
EE7 Shawford Control Gear Co. Ltd.
EE7 Shawford Engineering Co. Ltd.
F1 Sheen (Nottingham) Ltd.
QQ7 Sheffield Smelting Co. Ltd., The
LL4 Shell International Chemical Co. Ltd.
D1/L11 Siemens A.G.
E11 Siemens (UK) Ltd.
K16 Simmons Electrical Services (Sutton) Ltd.
L11 Simmonds Relays Ltd.
K6a Simmonds & Robinson Ltd.
J15 Simplex-Circulume Ltd.
J15 Simplex Electric Co. Ltd.
J15 Simplex-GE Ltd.
F2 Simplex Time Recorder Co. (UK) Ltd.
QQ2 Skandinavska Telekimpaniet A.B.
MM9 Small Power Machine Co. Ltd., The
J2 Smith Hobson Ltd. (Zenith Electric Group)
D4 Smithlite Ltd.
H2 Solderstat Ltd.
E9/E10 South Wales Eriez Magnetics Ltd.
E9/E10 South Wales Switchgear Ltd.
D3 Square D Limited
CC1 Stadium Ltd.
C1 Star Aluminium Co. Ltd.
EE5a Starkstrom Ltd.
F12 Sterling Cable Co. Ltd.
J11 Stollberg, H. F., Maschinenfabrik GmbH
H21 Stotz-Kontakt GmbH
J10 Stone-Platt Crawley Ltd.
QQ3 Stuart Turner Ltd.
RR7 Suflex Limited
H20 Sullivan, H. W., Ltd.
C1 Swiss Aluminium Co. Ltd., The
H17 Swiss Insulating Works Ltd., The
L8 Switchboards Ltd.
N2 Switchgear Engineering Ltd.
SS2 Symonds, R. H., Ltd.
SS2 Symonds Engineering Co. Ltd.
J24 Synthetic Carbon & Engineering Co. Ltd.

### T

FF3 T.P.H. Electronic Controls Ltd.
M8 Technical Press Ltd., The
FF5a Telcon-Magnetic Cores Ltd.
A4 Telefunken
A3 Telemecanique Electrique (Great Britain) Ltd.
M2 Tella Photography Ltd.
G7 Tenby Electrical Accessories Ltd.
M6 Thomas & Betts International Inc.
J14 Thorn Automation Ltd.
J14 Thorn Lighting Ltd.
L10 Thorpe, F. W., Ltd
OO3 Tridonic Ltd.
H3 Trunduct Ltd.
K9 Transmission Developments Ltd.

### U

K17 UK Selenoid Ltd.
F7 Unelec
L1a Unimax Switch Ltd.

### V

J9 Venner Ltd.
MM6 Vent-Axia Ltd.
K15 Verity's (Switchgear) Ltd.
K23 Victor Products (Wallsend) Ltd.

### W

K8 Walker, W. G., & Co. (Engineers) Ltd.
L3 Wallacetown Control Systems Ltd.
L3 Wallacetown Engineering Co. Ltd., The
GG6 Walz, Gustav, & Co.
F8 Watford Electric Co. Ltd.
K11 Watliff Co. Ltd.
D1 Weber-Schraubautomaten GmbH
NN8 Welineok Ltd.
DD4 Weller Electric Ltd.
G16 Whetton, A. J., & Co. (Mfg) Ltd.
G3 Whipp & Bourne Ltd.
QQ4 Whitehouse, George, & Co. (Birmingham) Ltd.
DD6 Whitelegg, Frank (Manufacturing) Ltd.
NN7/7a Wholesale Fittings Co. Ltd., The
PP6 Willsher & Quick Ltd.
PP6 Willsher & Quick (Northern) Ltd.
PP6 Willsher & Quick GmbH
AA10 Wimbledon Technical College
J20 Wireohms (Universal) Ltd.
M3 Woden Automation Ltd.
M3 Woden Transformer Co. Ltd.
E7 Wylex Electrical Products

### Y

E9/E10 Yorkshire Electric Transformer Co. Ltd.
L6 Yorkshire Switchgear & Engineering Co. Ltd.

### Z

CC8 Z.S.E. Power Engineering Industries
J2 Zenith Electric Co.
J11 Zevo Elektrizitats-GES

## AROUND THE STANDS, *continued*

ranges to $10^{15}\pi$, provide variable test voltages, be suitable for grounded and ungrounded samples, incorporates a Go/No-Go lamp indication and output contacts and range selection by push-button switching, making it suitable also for automated test systems.

For the first time under their new name, **CCL Systems Ltd.** (*Stand GG4*), formerly Cable Covers Ltd., will be showing the CCL Cablemaster compression equipment along with a range of fittings for terminating, phase, or tee jointing on power cables.

There will be a shooting gallery on the stand at which visitors will be invited to try for themselves the CCL-CATU line Proving Gun.

Other products on display will include: Versa Crimp – No-die compression system for overhead lines; live line clamps and equipment; temporary earthing and staying systems; a whole range of clamps and connectors.

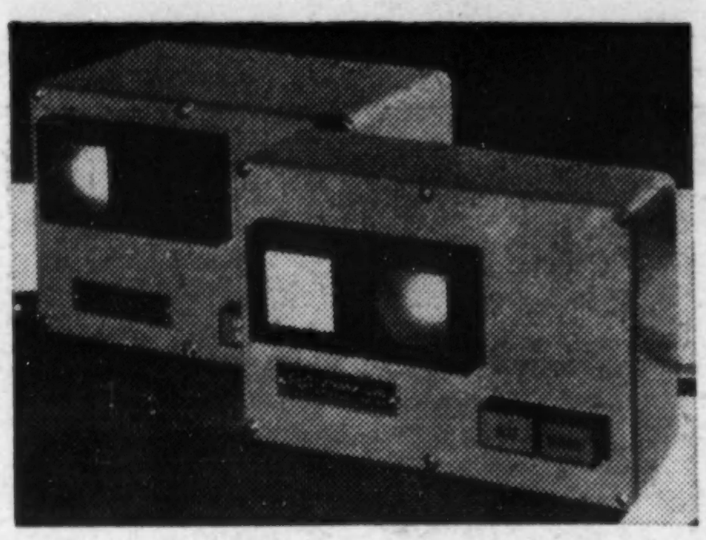
**The Carborundum Company Ltd.** (*Stand E15*) are featuring Globar electric heating elements including types LL, HRL and Super Globar elements for operations up to 1,650° C; Carborundum's reliable solid-state, silicon carbide gas igniter, designed for direct or electric-pilot gas ignition systems in cyclic or continuous operation; a range of electronic components including alumina (electronic grade), high temperature thermistors, NTC thermistors, PTC thermistors with a selection of varistors and resistors; Fiberfrax ceramic fibre for use in electrical and industrial applications along with carbon and graphite; yarn, felt, cloth, tube and rod; alumina substrates, boron nitride diffusion wafers together with a selection of super refractories and kiln furniture.

A floor mounting motor control centre, designed and built especially for the exhibition, will be shown for the first time by **Christy Bros. Ltd.** (*Stand QQ5B*). It has an individual interlocked motor sequence comprising motor control gear by leading British manufacturers and is intended to show versatility in the components that can be used within this motor control centre.

Several advantages are claimed for a stator coil puller which is to be exhibited for the first time by **R. H. Cole Ltd.** (*Stand D1*). It is said to be exceptionally robust, to be capable of high productivity, to provide a speedier turnround and lower stripping time.

In addition to displaying latest developments in their range of generating equipment, including the new '7600' solid state control system, **Dale Electric of Great Britain Ltd.** (*Stand HH5*) will combine with other newly associated companies of the Dale Group to show their latest products. Dale Electric Welders Ltd. will display diesel and petrol engine-powered mobile plant and also a competitive range of transformer welders. Bernard Motors Concessionaires will show a selection of their range of industrial petrol motors.

**Davis Trunking Ltd.** (*Stand G4*) will display skirting and floor trunking, bench trunking, link boxes and busbar risers, and cable trunking with accessories for industrial electrical installations in offices, hotels, hospitals, universities and television studios.



*New low cost, mains-operated fault-warning annunciator units to be displayed by Londex.*

**Egatube Ltd.** (*Stand H7*) will be showing comprehensive display of their pvc products. A selection of pvc conduit, trunking and accessories will be displayed in several sizes from a range of over 1,000 items. The main features will be: Light and heavy gauge conduit in round, oval and 'D' sections; elbows, bends, tees, couplings, etc.; cable trunking; skirting, architrave and cornice trunking; bench trunking.

The highlight of the display will be a new clip-on lid trunking which will be introduced at this exhibition.

**Esgo Plastics Machinery Ltd.** (*Stand PP4*) will show several fully- and semi-automatic machines including a new 40 gm. capacity automatic pneumatic machine, specially de-

(*Continued on page xv*)

ITR

**AN INVITATION FROM ITR**

On stand N1 (Ground Floor) at the Electrical Engineers (A.S.E.E.) Exhibition, you can see a complete range of British Made time equipment which covers Payroll, Job Costing, Time Signalling, Supervised Clock Systems and automatic timed circuit control equipment. As specialists in the time equipment field, we pride ourselves in the quality and technical advancement of our products, which are widely used throughout the United Kingdom and exported to over 60 countries. We invite you to come and see for yourself.

**INTERNATIONAL TIME RECORDING CO. LTD.,**
**ITR HOUSE,**
**BEAVOR LANE,**
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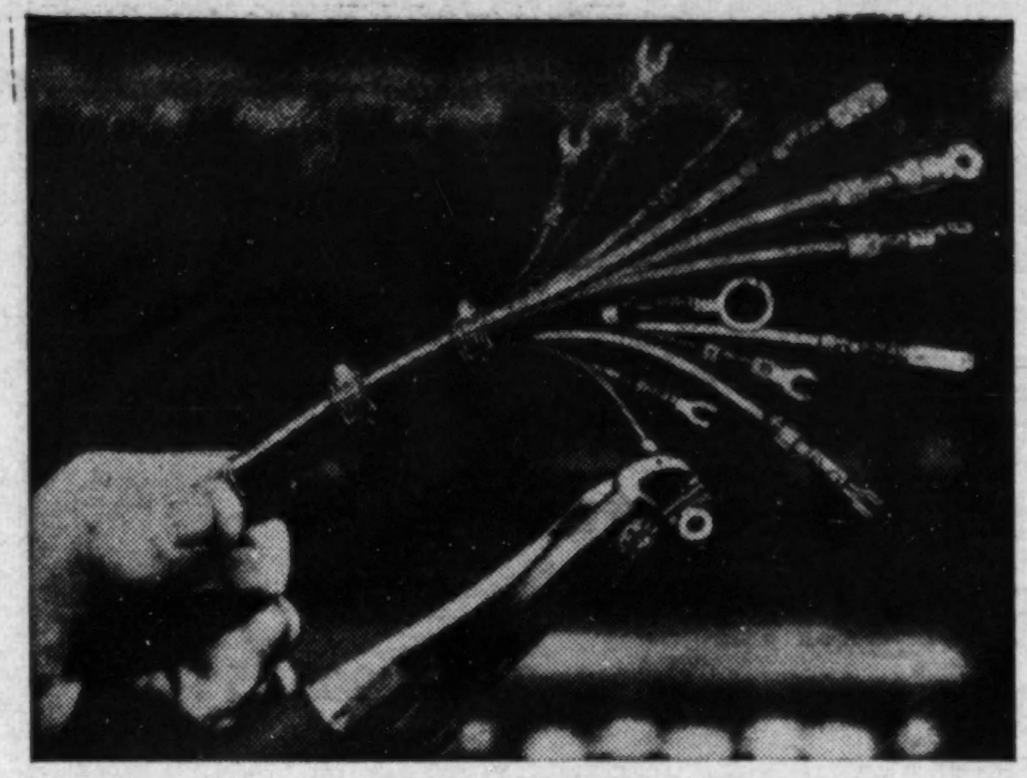
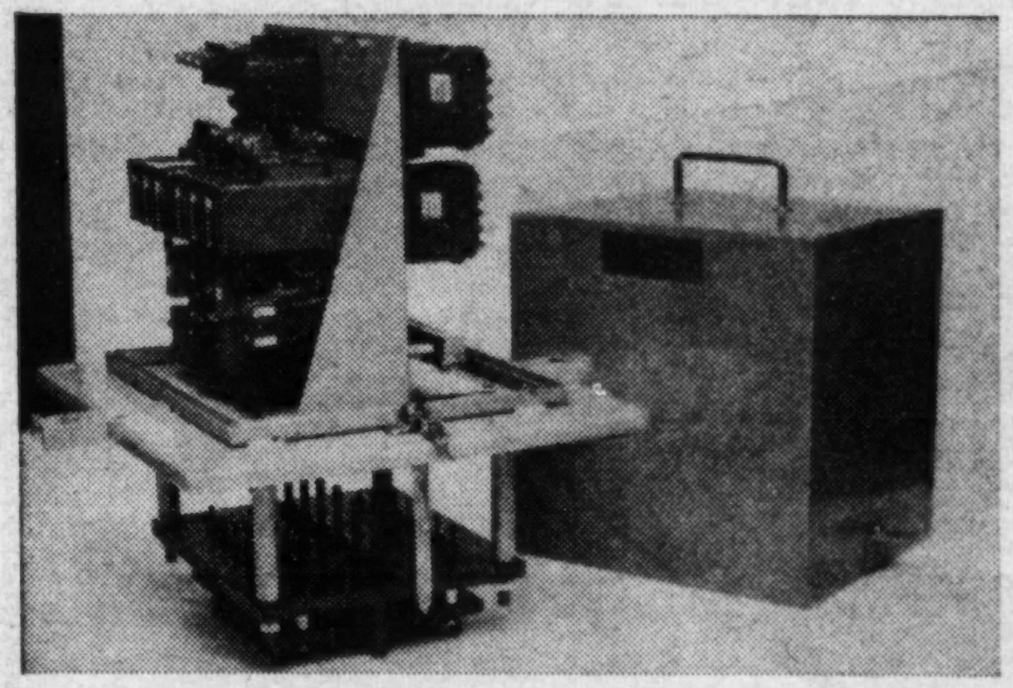
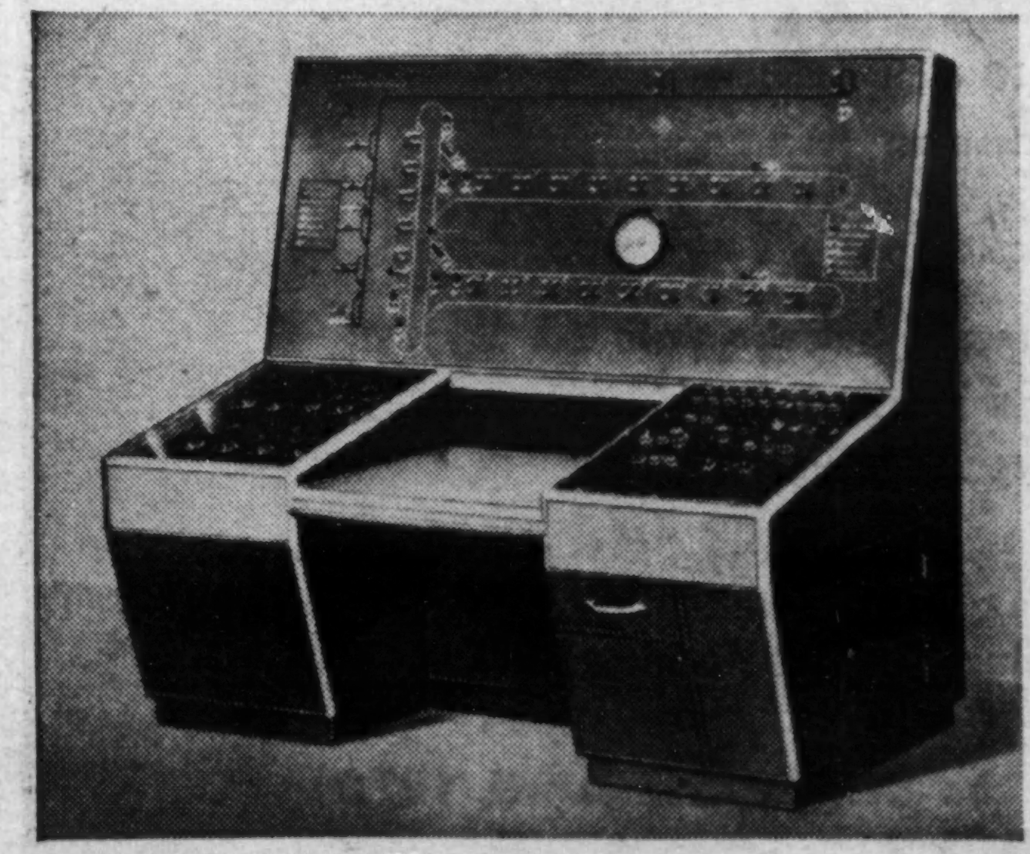
**Telephone: 01-748 4484**



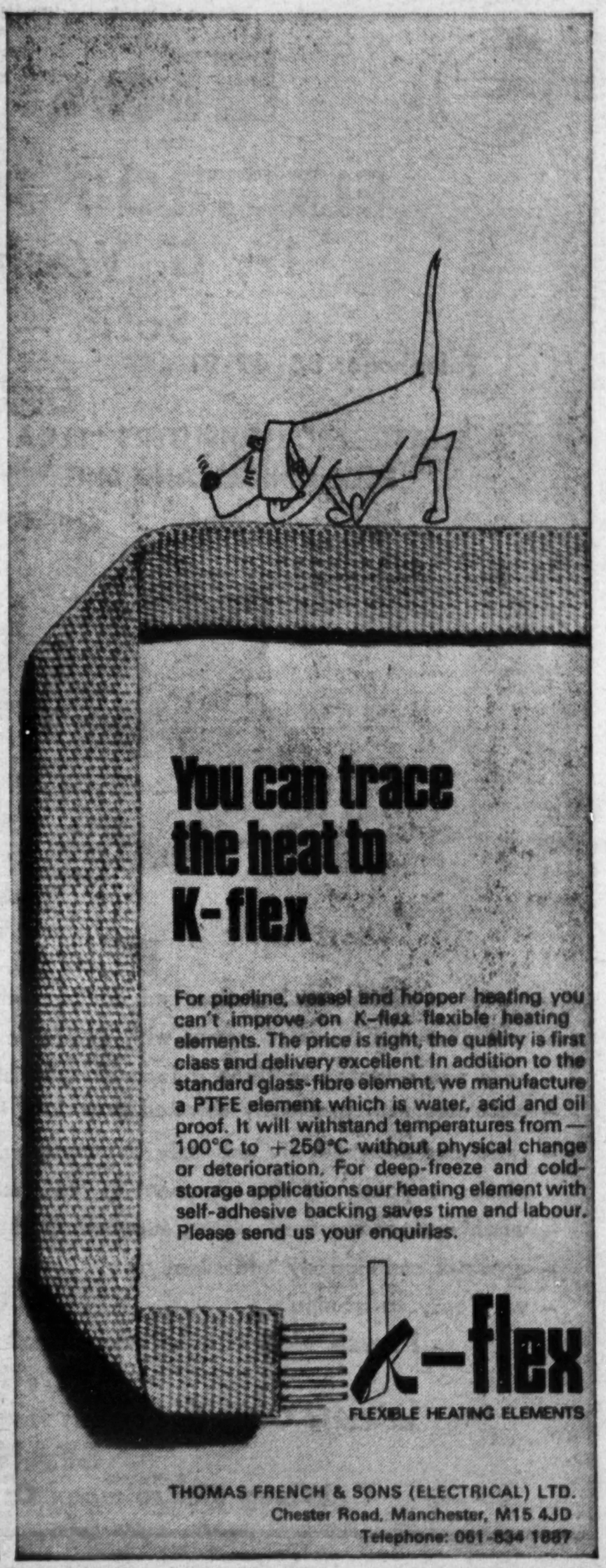
*BICC-Burndy's new 'Metricon' terminals for control wiring conductors.*



*'Plug-in' crane gear by Edward Holme and Co. (1931) Ltd., showing removable panel and cover.*



*Herbert Controls and Instruments design, engineer and manufacture control systems in electro-mechanical or Norbit 2 solid state logic from simple panels to large control schemes including multi-motor boards, sequence control, interface equipment and machine tool or transfer line control.*



You can trace the heat to K-flex
For pipeline, vessel and hopper heating you can't improve on K-flex flexible heating elements. The price is right, the quality is first class and delivery excellent. In addition to the standard glass-fibre element, we manufacture a PTFE element which is water, acid and oil proof. It will withstand temperatures from —100°C to +250°C without physical change or deterioration. For deep-freeze and cold-storage applications our heating element with self-adhesive backing saves time and labour. Please send us your enquiries.
K-flex
FLEXIBLE HEATING ELEMENTS
THOMAS FRENCH & SONS (ELECTRICAL) LTD.
Chester Road, Manchester, M15 4JD
Telephone: 061-834 1887

# Electroimpex

## ELECTROIMPEX CO. LTD.

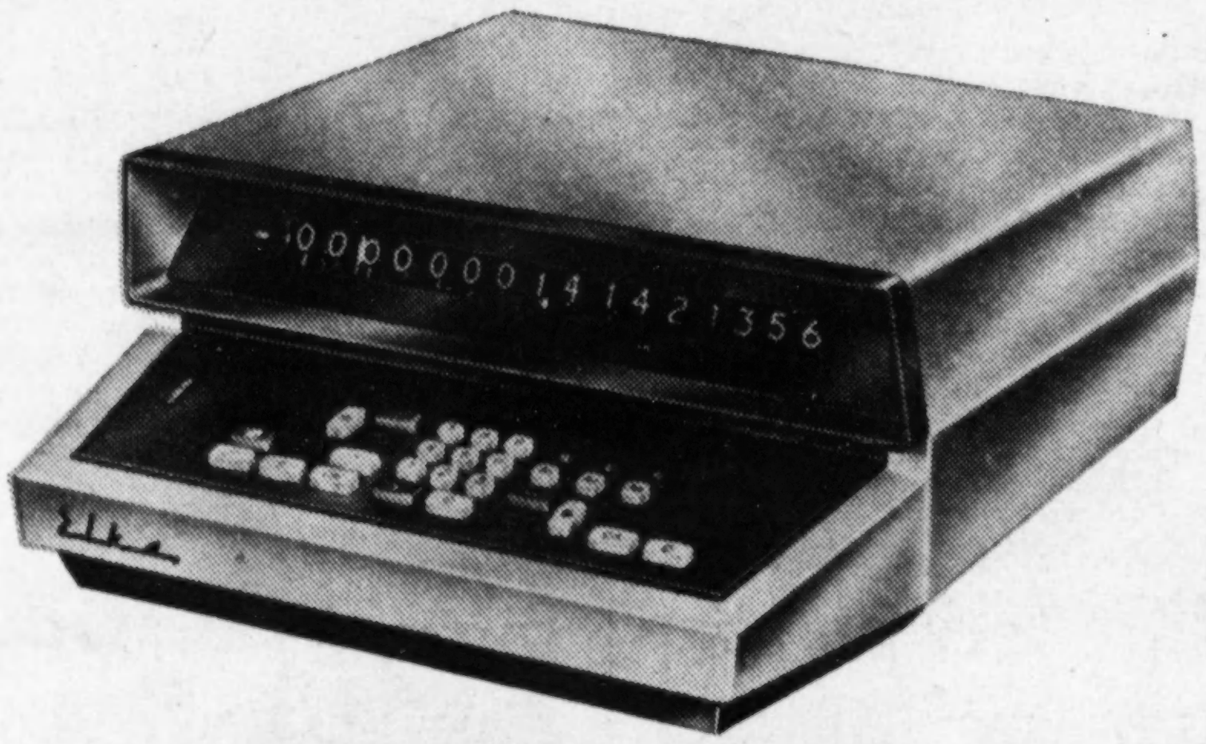
17, G. Washington Street

Sofia – Bulgaria

Telephone: 88-49-91 Telex: 22575

**OFFERS:**

ELECTRONIC COMPUTERS "ELKA 6521" – DESK TYPE FOR SOLVING ECONOMICAL AND ENGINEERING – TECHNICAL PROBLEMS



## ELKA - 6521

– performs addition, subtraction and rooting with 16 digit numbers;
– multiplies and raises to power with double preciseness;
– adds and subtracts in three independent registers;
– calculates with previously selected precision;
– calculates automatically not only the numerical results, but also their algebraic point and the alignment of the decimal point;
– when erroneously manipulated automatically stops the operation;
– operates continuously and silently;
– very easy to manipulate.

**Please visit the International Electrical Engineers Exhibition**

**"ELECTREX '70"**

**at Earls Court in London from the 8th to 15th April, 1970**

**STAND L2**

**Where Electroimpex Co. Ltd. exhibits its exponents**

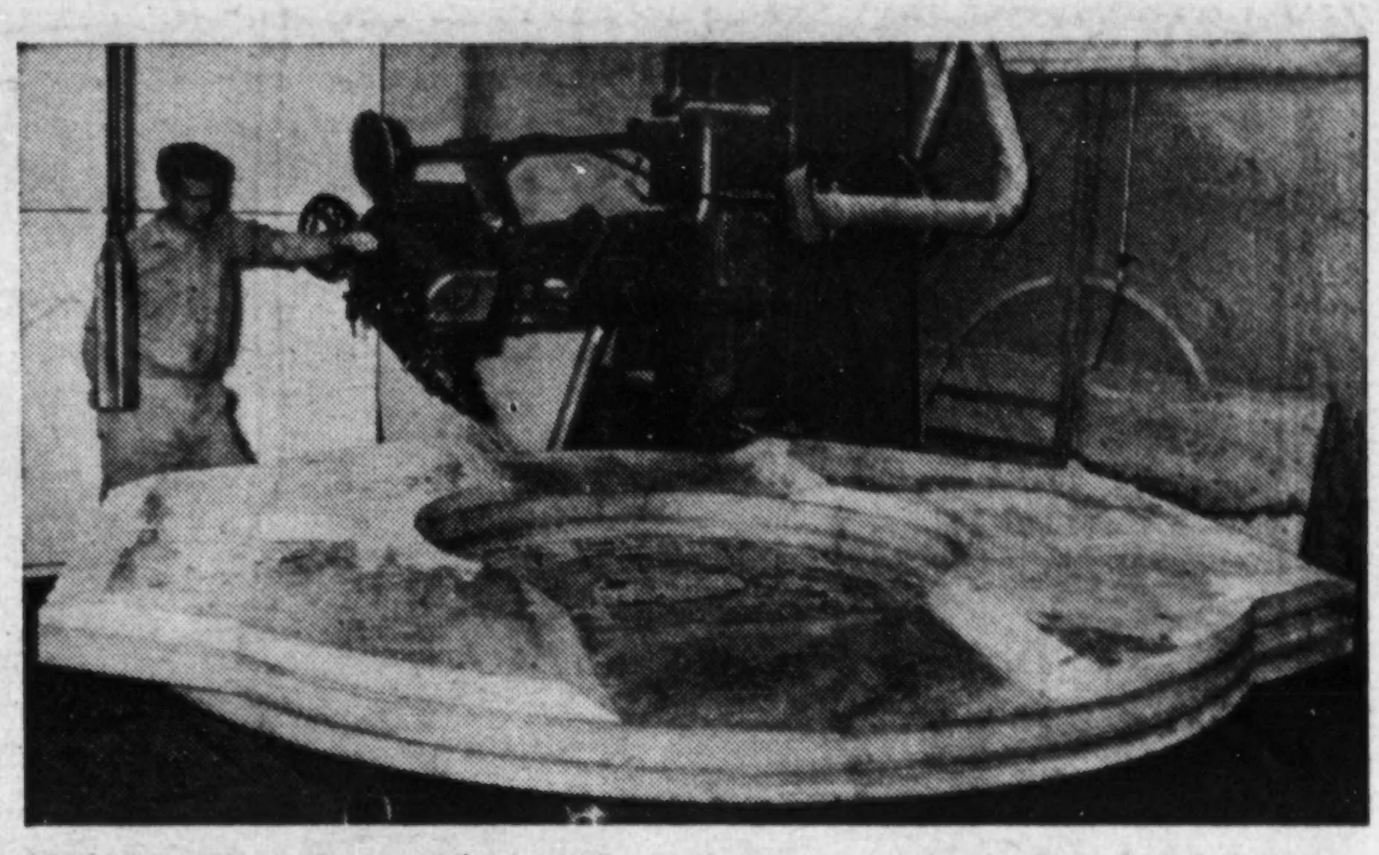
veloped for insert moulding of electrical components and wiring harnesses. The firm state that moulding of thermoplastic plugs and other connections on to electrical wiring harnesses, and similar insert moulding work, calls for particularly easy and safe manual access to the moulding area. This facility is adequately catered for by the 1½oz (40 gm) E25/C machine.

**Hilmor Ltd.** (*Stand J6*) will be showing, for the first time at an exhibition, the new EL.2 "Shortie" bending machine which has recently been introduced to satisfy the demand for a compact and truly portable conduit bending machine. Also on show will be a range of hand operated ratchet and hydraulic portable bending machines to bend electrical conduit and all classes of ferrous and non-ferrous tube up to 2in. diameter.

The exhibit also includes a comprehensive display of sample bends produced in various classes of round and non-round tube, busbars, waveguide bends and television aerial bends etc.

New control equipment developments to be shown by **English Electric-AEI Industrial Controls Ltd** (*Stand F10*) include vacuum contactors, high and medium voltage motor control centres, metric control components and motor starters, ultra high-speed DC circuit-breakers and static inverters or emergency power supplies.

The English Electric-AEI vacuum contactor range has now been extended to include a new 6.6 kV, 400 A unit, believed to be the first of its rating in the world. This 6.6 kV contactor, together with the 660 V unit will be featured.



*Machining a large Permawood transformer coil support ring in the Permali Ltd. factory, Gloucester.*

The 'Unimajor' starter board is a new product to be shown by **Field and Grant Ltd.** (*Stand HH7*). The company say that it is a natural design progression from the established Uniminor and Unicenter range of grouped starter boards and has been designed to meet the latest requirements for a high quality board for all aspects of motor starting duties.

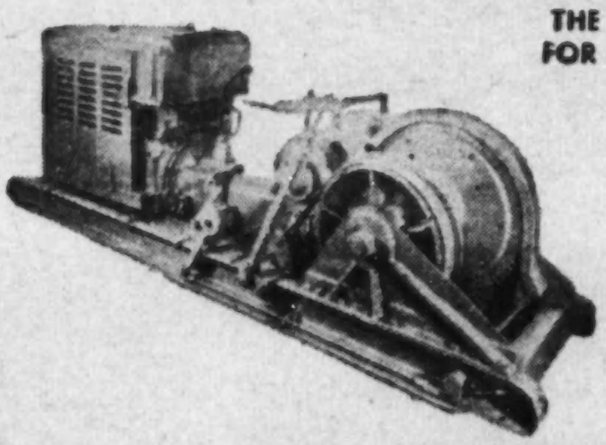
**A. T. Harrison and Co (Mouldings) Ltd.** (*Stand CC1*) are specialist moulders to the electrical and electronics industries and will be exhibiting samples of precision mouldings produced for various companies. Harrison and Co. points out that dimensional accuracy is essential to mouldings of this type. They have more than 20 years experience in compression and transfer mouldings, including mouldings with metal inserts.

(*Continued on page xix*)


# 'DARLINGTON' WINCHES

THE **'DARLINGTON'** STATIC

THE ALL-PURPOSE WINCH FOR HOME AND OVERSEAS



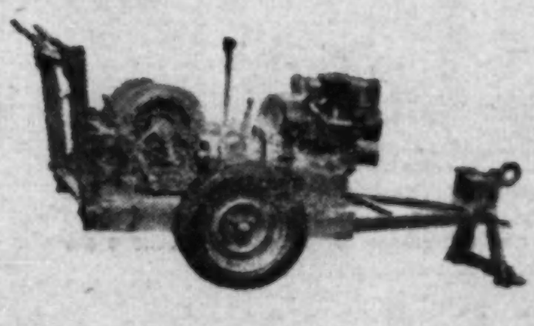
FOR HOISTING, HAULING, LOADING, UNLOADING, CONSTRUCTION OR DEMOLITION WORK

THIS MACHINE IS IDEAL FOR OILFIELD WORK

THE **'DARLINGTON'** PORTABLE POWER DRIVEN WINCH

THIS WINCH IS OF GREAT VALUE TO BUILDERS AND CONTRACTORS

POWERED BY PETROL OR DIESEL ENGINE



SPECIALISTS IN VEHICLE AND STATIC WINCHES

**DARLINGTON ENGINEERING CO.** (Gateshead) **Ltd.**

TEAM VALLEY ESTATE, CO. DURHAM

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| **BELGIUM** | Electricite |
| **BRAZIL** | Electronica Popular |
| | Mundo Electrico |
| **DENMARK** | Elektroteknikeren |
| **FRANCE** | L'Onde Electronique |
| | Moniteur Professionel de l'Electricite |
| **GERMANY** | Elektrizitaet |
| | Elektrizitaetswirtschaft |
| **HOLLAND** | Electra |
| | Electra Radio Mercuur |
| **ITALY** | Elettrotecnica |
| **JAPAN** | J.E.E. (Japan Electronic Engineering) |
| | J.E.I. (Japan Electronic Industry) |
| **NEW ZEALAND** | N.Z. Electrical Journal |
| **NORWAY** | Elektroteknisk |
| **RUMANIA** | Electrotehnica |
| **SOUTH AFRICA** | Transactions of the South African Institute of Electrical Engineers |
| **SWITZERLAND** | Telecommunications Journal |
| **U.S.A.** | Radio Electronics |

*This list covers only a few export markets, but we shall welcome your enquiries regarding overseas advertising throughout the World.*

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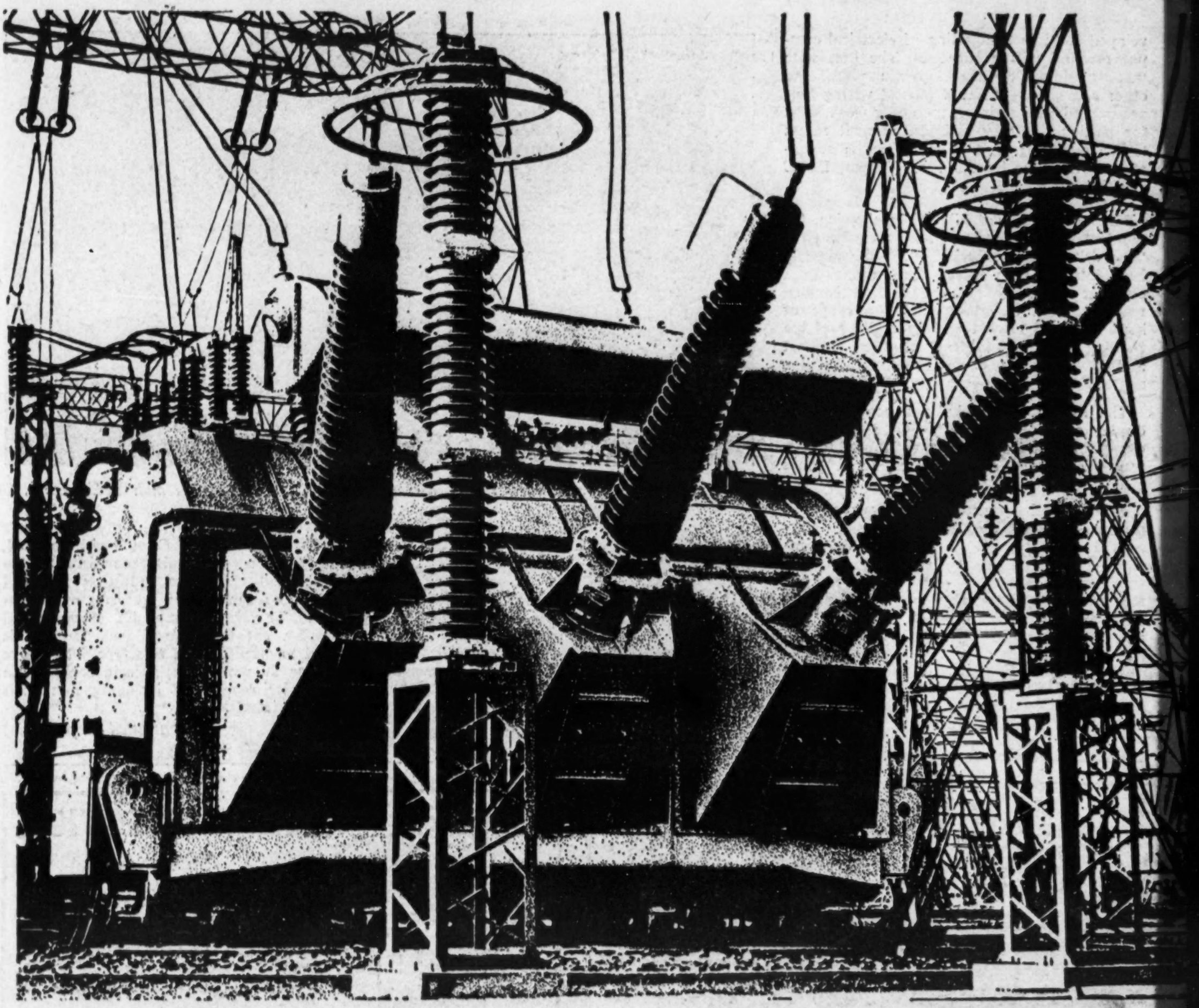

Giant drives utilising power in industry. The nine motors driving this 4-stand tandem cold strip mill at Colvilles Ltd., Gartcosh, Scotland have a total output of 24,350hp and are supplied from two synchronous motor generator sets.

Silenced air-blast circuit-breakers rated 400kV 35,000MVA installed at the C.E.G.B. switching station at Sundon, Beds. With a continuous current rating of 4,000A and a breaking capacity of 60kA these are some of the most powerful circuit-breakers in the world.

Four 500MW turbine-generators at the We Burton power station, Notts. These are the la gest single-axis rating in service in Britain toda Turbine-generators of more than twice th output are being built for the United State

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Now, one name means everything in electrical power engineering. GEC Power Engineering Limited combines the power engineering activities of Britain's three largest electrical companies – The General Electric Company Limited, The English Electric Company Limited, and Associated Electrical Industries Limited. By bringing together the immense skills, experience and resources available within these three companies, GEC Power Engineering Limited arms Britain with a world beating capability in every facet of electrical power. All from a single source.

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The converter station at San Dalmazio, Italy, one of the terminal stations of the 200MW 200kV direct current link with Sardinia for which the Company were main contractors. Orders for d.c. transmission schemes in Britain and Canada total over £20 million.

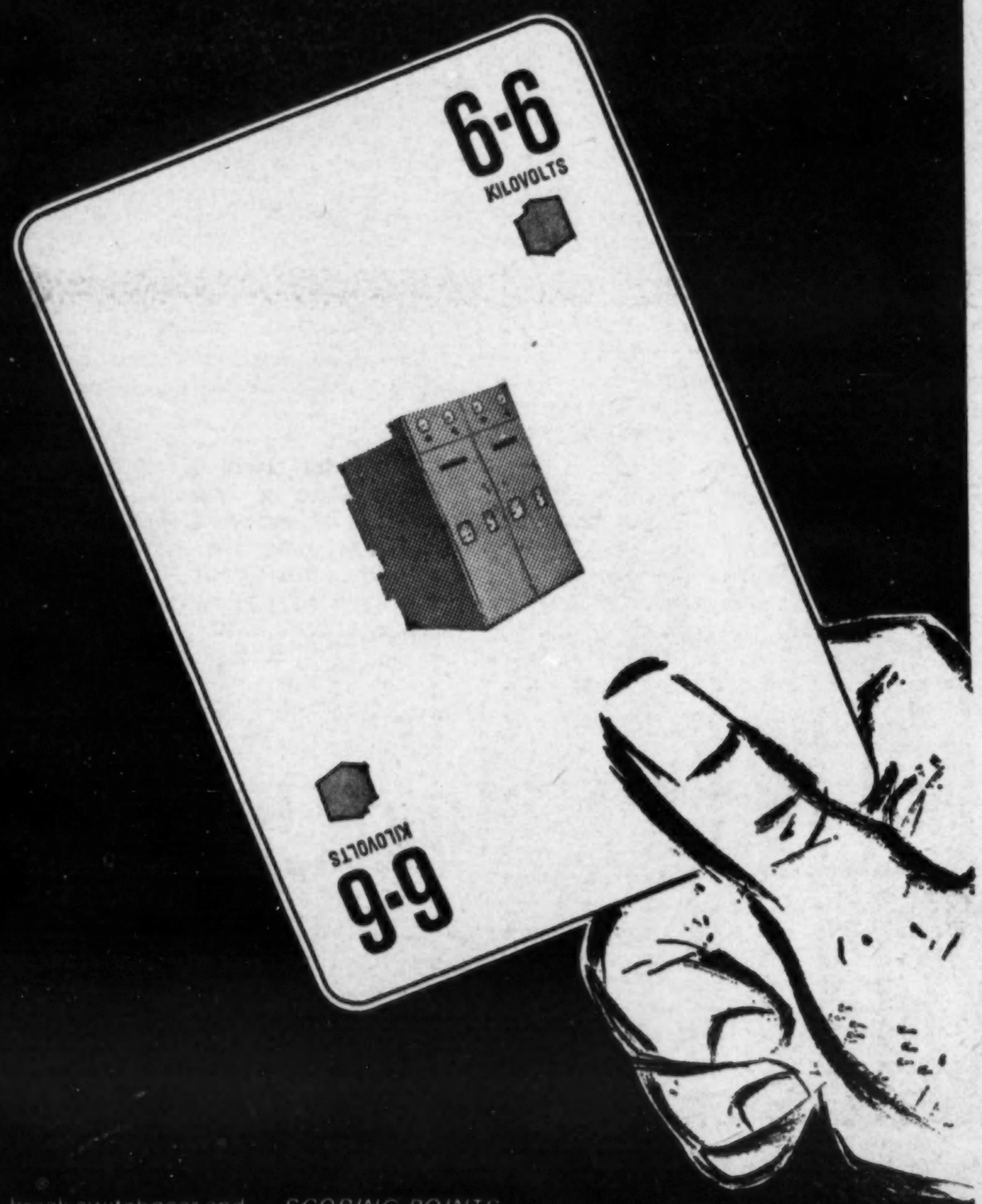
Some of the product companies together forming GEC Power Engineering Limited

**English Electric-AEI Turbine Generators Limited** uniting the turbine-generator activities of AEI and English Electric.
**English Electric-AEI Machines Limited** uniting the machines and electric motors activities of AEI, English Electric and GEC.
**GEC Switchgear Limited** uniting the switchgear activities of AEI, English Electric, GEC, J. G. Statter Limited and Switchgear & Cowans Limited.
**GEC Transformers Limited** uniting the transformer activities of AEI, English Electric, GEC and Hackbridge & Hewittic Electric Company Limited.
**English Electric-Hewittic Rectifiers Limited** uniting the rectifier activities of English Electric and Hackbridge & Hewittic Electric Company Limited.
**English Electric-AEI Traction Limited** uniting the traction activities of AEI and English Electric.

## roups forged from the merger of GEC and English Electric

**GEC-ENGLISH ELECTRIC are exhibiting on STANDS F10 and M14**

# Our trump card...




We are now manufacturing **6.6kV** air-break switchgear and motor switching devices to complement the previous aces we have led with for many years in the development of switchgear.

In general, they are identical in size and appearance to our 3.3kV units, but have far more face value.

*A set of these would even be something to brag about!*

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- *6.6kV breaker: 1600/2400 Amp. 350 MVA. Integral earthing device. 350 MVA for 3 secs.*
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**VISIT US ON STAND G3, A.S.E.E. EXHIBITION · EARLS COURT · LONDON · 8th–15th APRIL 1970**

**Hawke Cable Glands Ltd.** (*Stand EE5*) are to exhibit their Series Range Mark II cable glands, and will illustrate the wide range of applications covered by this design. The Hawke/LB cable transit will be shown and will be of interest to those who have problems with the passing of cable through floors, ceilings, walls, bulkheads etc.

Among new products to be shown by the company is the Hawke visible charge transformer breather. This breather has been designed to ensure maximum utilization of the dessicant, give a true indication of its state at a glance and provide simple fittings and charge replacement. All threads are protected because of their internal location and the whole breather assembly is proofed against conditions normally found in outdoor locations.

The electrical interests of the Hawker Siddeley Group are strongly represented by **Hawker Siddeley Electrics Ltd.** (*Stand F9*) Four of Hawker Siddeley Electric's operating companies – Brush Electrical Engineering, Crompton Parkinson, Hawker Siddeley Power Transformers and Morecambe Electrical Equipment – are showing products ranging from fractional-horsepower motors to packaged sub-stations.

The Rotating Machines Division of Brush Electrical Engineering Co. Ltd. will display a range of alternators including a machine for marine use with thyristor direct excitation, and examples of small, revolving armature alternators of the self-excited, self-regulated type. The Brush metric range of motors and an AC and DC variable drive demonstration unit will also be featured.

The division is also exhibiting models of 17.5 MW turbo-alternator generating units. These generating units, which are enclosed in weatherproof housings, are currently being exported in quantity by Brush Electrical.

The Control Gear Department, Switchgear Division and Transformer Division of the company will also be represented.

'The White Meter Plan for complete home heating' is the 1970 theme for **Heatrae Ltd.** (*Stand E3*). In addition to the new range of Electricaire units and the 'Twin Heat' White Meter immersion heater, this includes a wide range of off-peak water heating equipment.

The new Heatrae Electricaire range comprises 11 models from 6 to 18 kW and incorporates several unique features one of the most important being that the outer case remains cool at all times. A working model will demonstrate the unique features of the Heatrae unit, as well as the direct acting device and range of programmer controls. The programmer units also include special controls for 'Off-Peak' hot water to control the Heatrae complete home heating system.

The Twin Heat immersion heater is fitted with two separate heating elements independently controlled by two stem type immersed thermostats and is ideal for use with the 'White Meter' tariff and will give the most economic service from a bulk electric hot water supply provided by normal tariffs. The Twin-Heat is available in four lengths from 23 to 36 inches.

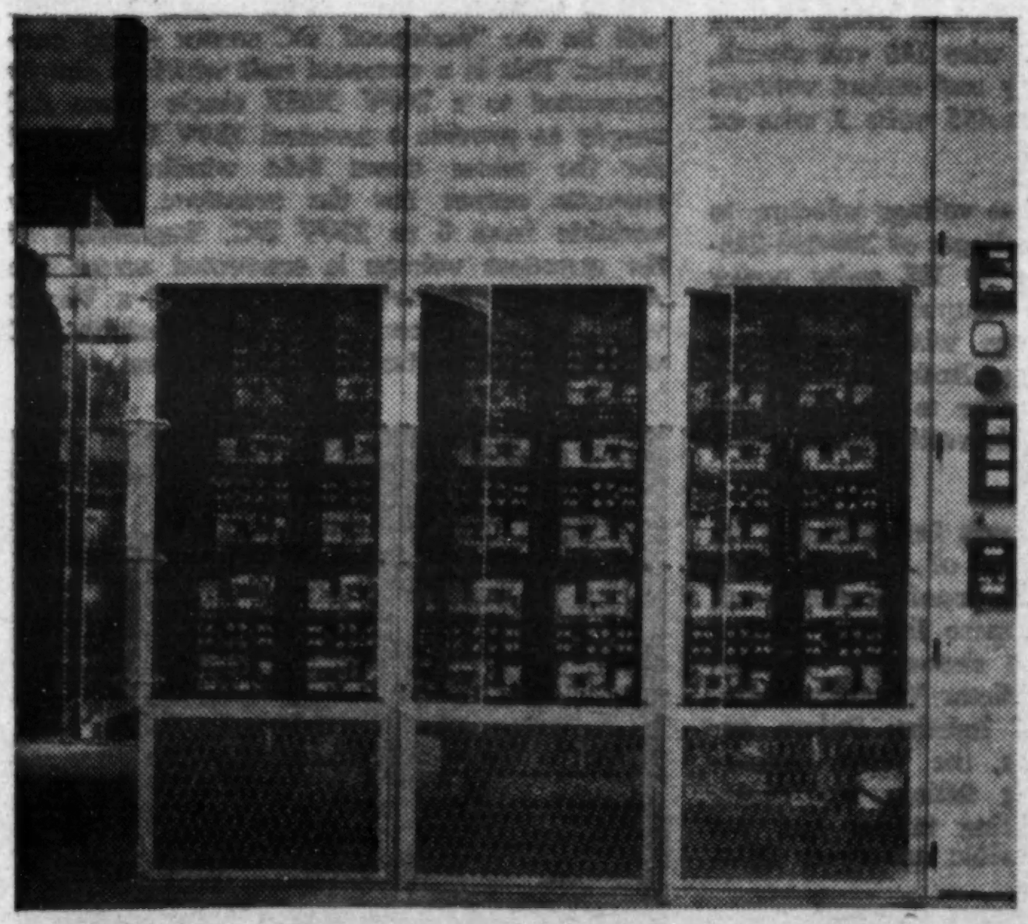
The successful Lidomat shower system is included in the electric water heating range and will be working. The Lido Express over-sink displacement type water heater and its under-sink counter part the Lidomat together with the selection of tap fittings and the 'FB' cistern type water heater will also be shown.

A selection of the Cirrus and Nimbus range of insulated hot water and combination type storage cylinders will also be exhibited together with the 'Speediboil' combined water heater and quick boiling electric kettle.

Innovations to be presented by **Klockner-Moeller Ltd.** (*Stand KK4*) include Universal DIL contactors, with two contactor ranges condensed into one; a new unit-construction-principle high-current system for 1,000 to 2,000 A; an all-insulated bus duct system for 100 A. continuous rating; control devices for 22.5 mm. mounting aperture; and electronic and relay units for control systems – a system which comprises standard and universal printed circuit cards which can be fitted with almost any desired combination of compact electronic components, according to the application required.

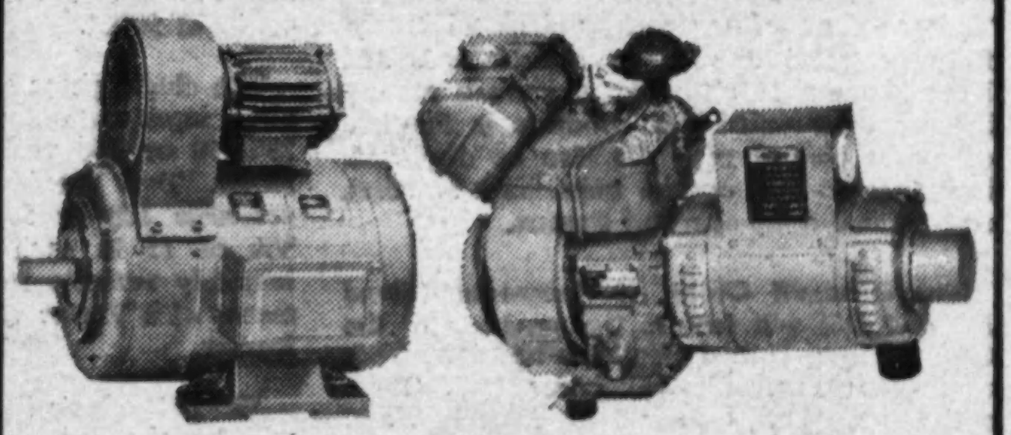
The company will also display a complete range of equipment from components to prewired assemblies, and including motor control gear, industrial electronics (a working NORLOGIC display will show the standardized system with numerous printed circuit cards) and distribution equipment.

**Kolectric Ltd.** (*Stand RR4*) will exhibit coil winding machinery enabling automatic, automated or manual production of transformers, solenoids, stators, relays, chokes, resistors and a wide range of other coils. Notable among the new products to be shown at this year's ASEE exhibition is the Model KL4 four-spindle front-loading machine, which has as standard a 12,000 rpm direct reading predetermined counter controlling the four linked winding spindles.



*English Electric Hewittic Rectifiers Ltd. will be represented on the GEC, English Electric, AEI stand (Stand F10) where English Electric Hewittic silicon rectifiers for heavy duty traction and essential DC power supplies will be displayed, also Bertram Thomas high-speed truck-type DC switchgear. This picture shows an example of the traction rectifier equipment to be included. This is a 4,000 kW naturally air-cooled English Electric Hewittic silicon rectifier providing an output of 5,715 amps at 700 volts. It is one of 66 sub-station rectifier equipments totalling 192,000 kW for the Metropolitan Transportation Authority, New York, for the Long Island Rail Road Service.*


ELECTRIC MOTORS · GENERATORS

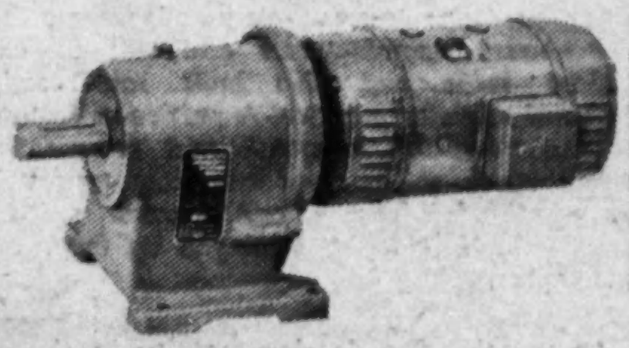


Three phase motors 0.12—200 h.p. D.C. and Universal motors 0.12—30 h.p.

Special variable speed motors for extremely low speeds for driving assembly and conveyor belts.

Gear and brake systems · Electronic governors · Split pole motors · Transformers

Generators 0.5—5 KVA combined with gas motors.



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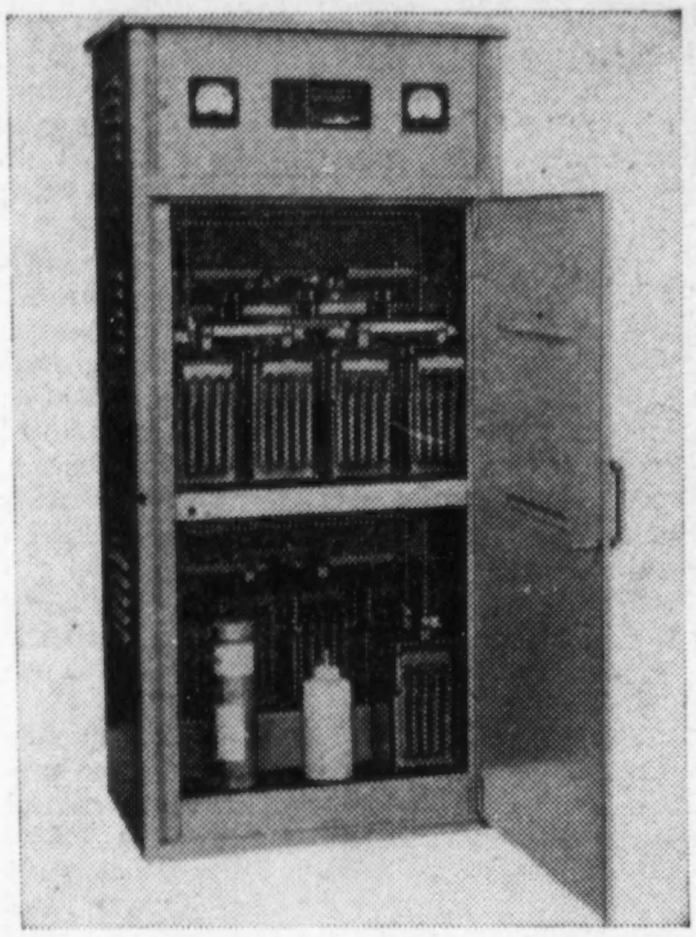


*A typical Keepalite emergency lighting equipment in self-contained cabinet housing Chloride-Tudor battery in lower compartment with charging and control gear above.*

**MEM (Midland Electric Manufacturing Co. Ltd)** (*Stand C4*) will show a variety of 250 volt and 500 volt switchgear, distribution fuseboards and busbar chambers, glands and sealing chambers and spreader boxes for cables, industrial and cubicle pattern switchboards, electrical wiring accessories, motor control gear, push-button control stations, single-pole miniature circuit breakers and adjustable industrial lighting units low voltage transformers.

Several new products will be shown including 'Glasgow-Exel' fuse-switch units, 'Memway' fully protected distribution switchboards and New Memera II all-insulated surface mounting consumer units. New products in the field of motor control gear will also be displayed, including oil-tight control units, limit switches, and manual dolly-operated starters.

**The Ottermill Group of Companies** (*Stand D5 and D6*) will feature the products of the Group's four United Kingdom-based member companies: Ottermill Switchgear Ltd., Ottermill Chilton Ltd., Ottermill Products Ltd. and Ottermill Engineering Ltd. Ottermill Switchgear will be introducing the brand new range of industrial and cubicle type fuse switches in ratings from 80 to 600 amps. The panel mounting type offers many advantages to switchboard manufacturers and will be exhibited loose and also built into newly designed modular cubicles. A particular feature of the range of industrial and commercial switchboards of the floor mounting type will be a moulded case circuit breaker switchboard – the first to be displayed by Ottermill Switchgear.

Among the new developments to be shown by **Preformed Line Products (Great Britain) Ltd.** (*Stand CC7*) is an Amor-Grip spacer. This is said to be a revolutionary concept in the spacing of overhead transmission lines developed from the Armor-Grip suspension unit manufactured for various spacings between conductors for twin, tri and quad bundles. Other new developments are the Service-Grip Dead-end which is a neat, light, speedily applied fitting for LV distribution spans to BEBSL 1 (1962) and top and side bind shunts: a fitting manufactured especially for copper conductors where either the top or side bind is in such a condition as to cause concern and a speedy method of restoring the full mechanical and conductive properties is wanted.

A new range of cables and flexibles to metric standards BS 6004, BS 6500 and BS 6231 together with cables manufactured to other standards will be featured by **Rist's Wires and Cables Ltd.** (*Stand G13*). Other exhibits are wiring harnesses for aircraft, electronic equipment, domestic appliances and general applications. A range of domestic cartridge fuses, cable clips and preformed extension leads, incorporating a 13 amp plug and socket will also be shown, plus flexible and rigid printed circuits.

A novel sales aid display will operate on the stand also a technical display illustrating the heat-resisting qualities of Rist's glass-fibre cables. The new RWC company symbol introduced in late 1969 will be a prominent feature on the stand.

New products to be exhibited by **Smith Hobson Ltd.** (*Stand J2*) are a portable single phase phantom load KWH meter test set, a portable three phase phantom load KWH meter test set and a portable voltage transformer test set, in addition to the usual Smith Hobson range of current and voltage transformers and toroidal inducters.

The meter test sets are for use in checking Kilowatt hour meters against a reference meter on site, or in a small testing station. The three phase set replaces the previous design which was for use only on a 3 wire 110 volt circuit. In this model, the supply and output voltages are: 110 volts 3 wire or 415 volts 3 wire or 4 wire at 50HZ.

The single phase set has voltage selectors to allow input and output voltages of 200-210-220-230-240 or 250 volts at 50 HZ unity power factor. Two maximum output currents are available 100 or 50 amps with a maximum VA of 15 in each case. Both currents are infinitely variable from zero to maximum by means of a Variac variable voltage auto transformer.

**Victor Products (Wallsend) Ltd.** (*Stand K23*) will be showing examples of their versatile range of flameproof, flameproof-weatherproof, Division 2 and multi-purpose lighting fittings. Several products will be shown for the first time. They include the Victor Viscount flameproof and weatherproof lighting fittings for tubular fluorescent lamps, the Victor Aristocrat Division 2 lighting fitting, the Victor Coronet flameproof lighting fittings and the Victor Anti-Vandal recessible underpass lighting fitting.

The Semi-conductor Division of **Westinghouse Brake and Signal Co. Ltd.** (*Stand E309*) will exhibit a comprehensive display of semiconductors and will feature the progress and developments of power devices. High power ceramic capsule thyristors which can be cooled on two surfaces will be shown as well as high power moulded capsule thyristors for single- or double-sided cooling range from 75A-370A cooled on one surface and 110A-550A cooled on two surfaces. Other thyristors include the conventional wire-ended, stud base and flat square base thyristors in current ratings from 500mA-500A, voltage ratings up to 4.5kV; fast switching thyristors for use in inverters and chopper circuits.

The extensive range of Westinghouse silicon diodes provide current ratings from 500mA in convenient steps up to 830A and voltage ratings from 100V to 5kV will also be shown.

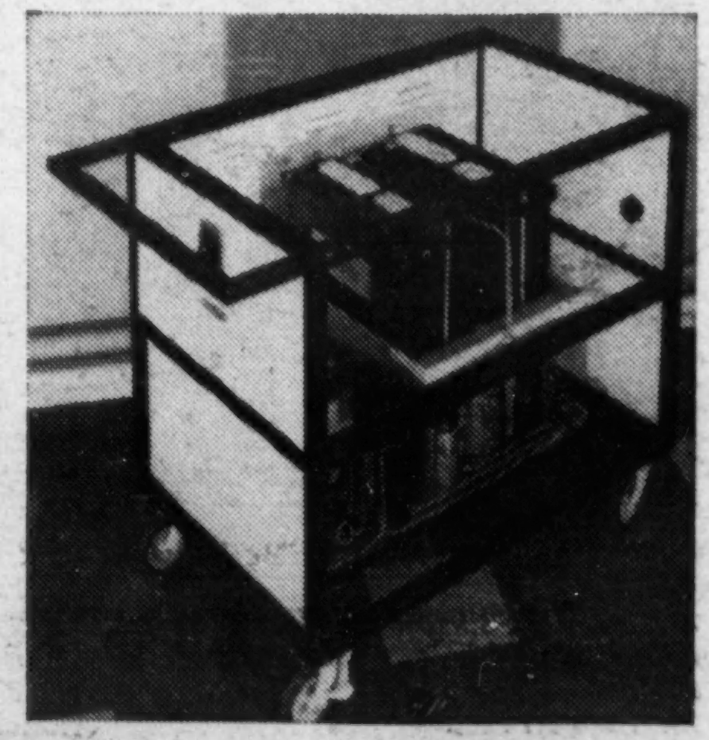
Avalanche types rated from 1.5A-10A, voltage ratings up to 100-1200V, fast recovery diodes for electronic circuits and low power inverters 1-10A, 100-600V will be included.

New fast recovery diodes for use in power inverter circuits with ratings up to 250A, 1800V will be shown for the first time.

**Whipp and Bourne Ltd.** (*Stand G3*) will display several new products. They include a 6.6 kV, 1600 amp 350 MVA type 'BH' metal clad air circuit breaker, a 'BK' metal clad motor switching device fitted with 3-150 amp HRC fuses in parallel per phase; a 411V, 1600 amp 31 MVA type 'IF' air circuit breaker and a 3.3 kV 350 amp 250 MVA type 'AK' metal clad, nonwithdrawable free standing motor switching device fitted with 1-350 amp HRC fuse per phase.

The new 'Powerstay' automatic voltage stabilizer will be shown by **Zenith Electric Co. Ltd.** (*Stand J2*). Zenith 'Powerstay', says the company, protects and maintains performance of all voltage-sensitive equipment by smoothing out fluctuations caused by seasonal supply variations or intermittent loading of local distribution systems. It is designed to operate well below the nominal ratings of its components to ensure trouble-free performance.

The other new product on display by Zenith will be the 'Varispeed' DC motor speed controller. This is a compact unit which is simply connected to a 240V 50HZ single phase AC supply to provide a nominal 220V DC output for the motor shunt field winding, and a separate output for the armature, infinitely variable from 0 to 220V DC. Regulation of the armature voltage is connected across the AC supply, adjustable by means of a Variac variable transformer to provide a variable AC voltage input to the armature rectifier.



*Erskine Laboratories have developed this standby power trolley for hospitals to ensure a continuous and simultaneous supply of power to items of essential equipment as used in ITU's and coronary care wards.*

# This is Ottermill today!

## Stand D6–D5

A dynamic rationalisation of resources has taken place within the expanding Ottermill Group. Four specialist operating companies now offer you the widest range of quality products backed by the most comprehensive technical service. Whatever your needs in the field of electrical distribution equipment and instrumentation – an experienced Ottermill company is ready to help you. Come and see our products, and talk over your problems or requirements with our technical people.

**Ottermill Switchgear Ltd** Switchboards, Breakers and Distribution Equipment
**Ottermill Products Ltd** (Incorporating Prentice Ltd and Sanders Switchgear Ltd) Domestic and Industrial Switchgear
**Ottermill Chilton Ltd** (Formerly Chilton Electric Products Ltd) Miniature and Moulded Breakers, Protection Systems, Shaver Sockets
**Ottermill Engineering Ltd** (Formerly Panford Engineering Co Ltd) Motor Control Centres, Instrumentation Panels, Busbar Trunking Systems

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# Electric Power.

H.S.E.E. is the export marketing organisation for the electrical interests of the Hawker Siddeley Group, providing a technical service, and supplying generating, distribution and industrial equipment through associated companies and agents in all areas of the world. Equipment is produced at the factories of –

**Brush Electrical Engineering Co. Ltd.**
– generators, motors, switchgear, distribution transformers –

**Crompton Parkinson Ltd.**
– cables, motors, lamps, lighting fittings, batteries, instruments –

**Hawker Siddeley Power Transformers Ltd.**
– large transformers, reactors, tap-changers –

– all companies with a long established world-wide reputation for proven products of technical excellence.

## HAWKER SIDDELEY ELECTRIC EXPORT

HAWKER SIDDELEY ELECTRIC EXPORT LTD., CROMPTON HOUSE, ALDWYCH, LONDON, W.C.2., ENGLAND

Hawker Siddeley Group supplies mechanical, electrical and aerospace equipment with world-wide sales and service.

## Table 2. Price index numbers of output

1963 = 100

| 1968 SIC | | 1968 4th qtr. | 1969 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | 1969 Feb. | July | Aug. | Sept. | Oct. | Nov. | Dec. | 1970 Jan. p | Feb. p |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OUTPUT OF MANUFACTURED PRODUCTS | | | | | | | | | | | | | | |
| Orders III to XIX | All manufactured products: Total sales | 118·2 | 119·5 | 120·3 | 121·3 | 122·7 p | 119·6 | 121·0 | 121·1 | 121·7 | 122·2 | 122·6 | 123·2 p | 123·9 | 124·1 |
| | Home sales | 116·7 | 118·2 | 119·2 | 120·3 | 121·7 | 118·3 | 120·0 | 120·1 | 120·8 | 121·1 | 121·6 | 122·4 | 123·2 | 123·6 |
| Orders IV to XIX | Products of manufacturing industries other than food, drink and tobacco: Total sales | 116·2 | 117·0 | 117·8 | 118·9 | 120·4 p | 117·1 | 118·5 | 118·8 | 119·4 | 120·0 | 120·3 | 120·8 p | 121·3 | 121·6 |
| | Home sales | 113·1 | 114·1 | 115·1 | 116·5 | 118·0 | 114·1 | 116·0 | 116·4 | 117·0 | 117·5 | 117·9 | 118·6 | 119·3 | 119·7 |
| | OUTPUT OF SELECTED BROAD SECTORS OF INDUSTRY | | | | | | | | | | | | | | |
| 211–229 | Products of the food manufacturing industries: Home sales | 115·7 | 117·0 | 118·0 | 118·8 | 120·6 | 117·1 | 118·8 | 118·2 | 119·3 | 119·9 | 120·5 | 121·5 | 123·6 | 123·9 |
| Order V | Chemicals and allied industries: Total sales | 108·6 | 109·0 | 109·3 | 109·9 | 110·2 ρ | 109·0 | 109·7 | 109·8 | 110·1 | 110·1 | 110·2 | 110·4 p | 110·7 | 110·7 |
| | Home sales | 105·5 | 105·7 | 105·9 | 106·7 | 107·4 | 105·6 | 106·4 | 106·7 | 107·0 | 107·2 | 107·4 | 107·7 | 108·1 | 108·2 |
| 311 and 312 | Steel industries: Total sales | 107·8 | 108·8 | 110·1 | 114·7 | 119·0 p | 108·7 | 114·5 | 114·8 | 114·9 | 117·4 | 118·9 | 120·6 p | 121·7 | 127·1 |
| | Home sales | 107·2 | 107·6 | 108·7 | 114·3 | 118·6 | 107·6 | 114·0 | 114·3 | 114·7 | 117·3 | 118·3 | 120·4 | 121·8 | 128·4 |
| Orders VII to XII | Engineering and allied industries: Total sales | 117·4 | 118·1 | 118·7 | 120·2 | 121·9 p | 118·3 | 119·5 | 120·1 | 120·9 | 121·5 | 121·8 | 122·4 p | 122·8 | 123·0 |
| | Home sales | 113·8 | 114·9 | 116·2 | 118·3 | 120·2 | 115·0 | 117·5 | 118·4 | 119·1 | 119·6 | 120·1 | 121·0 | 121·5 | 121·8 |
| Order VII (excluding MLH 342) | Mechanical engineering: Home sales | 115·8 | 117·2 | 118·7 | 120·9 | 122·8 | 117·3 | 120·2 | 121·0 | 121·6 | 122·1 | 122·7 | 123·6 | 123·9 | 124·2 |
| Order IX | Electrical engineering: Home sales | 112·8 | 113·7 | 115·0 | 117·3 | 119·3 | 113·8 | 116·3 | 117·1 | 118·4 | 118·9 | 119·3 | 119·7 | 120·6 | 120·7 |
| Order XIII | Textile industries other than clothing: Total sales | 110·3 | 111·6 | 112·6 | 113·1 | 113·9 p | 111·7 | 113·0 | 113·2 | 113·3 | 113·5 | 114·1 | 114·2 p | 114·4 | 114·5 |
| | Home sales | 109·2 | 110·4 | 111·3 | 111·8 | 112·4 | 110·4 | 111·5 | 111·8 | 112·0 | 112·2 | 112·4 | 112·5 | 112·8 | 112·9 |
| Order XV | Clothing and footwear: Home sales | 109·7 | 110·6 | 111·3 | 111·8 | 112·4 | 110·6 | 111·7 | 111·8 | 112·0 | 112·2 | 112·3 | 112·4 | 112·8 | 112·9 |
| Order XVII | Timber industries: Home sales | 119·7 | 121·3 | 122·2 | 123·2 | 124·2 | 121·4 | 122·7 | 123·3 | 123·5 | 124·0 | 124·2 | 124·3 | 125·7 | 126·3 |
| 481–484 | Paper industries: Home sales | 113·4 | 116·1 | 117·2 | 118·7 | 120·8 | 116·3 | 118·0 | 118·2 | 119·8 | 120·4 | 120·8 | 121·3 | 123·3 | 124·4 |
| Order XX | New construction‡ | 120 | 122 | 123 | 124 | 125 | | | | 124 | | | 125 | | |

‡ Index of building costs figures relate to average for the first quarter.

## Table 3 (a). Commodities produced in the United Kingdom

1963 = 100

| 1968 SIC | | 1969 Feb. | Aug. | Dec. | 1970 Jan. p | Feb. p |
|---|---|---|---|---|---|---|
| 101 | Coal | 115·2 | 111·0 | 117·6 | 122·2 | 128·4 |
| 102/2 | Slates | 120·6 | 120·6 | 120·6 | 120·6 | .. |
| 109/3 | Salt | 97·2 | 93·9 | 97·2 | 97·2 | 97·2 |
| 211 | Flour | 122·5 | 122·5 | 122·5 | 122·5 | 122·5 |
| 216 | Sugar refined | 99·3 | 93·9 | 95·8 | 96·4 | 92·3 |
| 217 | Chocolate and sugar confectionery | 122·1 | 124·6 | 126·0 | 130·3 | 131·3 |
| 231 | Beer | 137·8 | 140·1 | 145·6 | 145·6 | 145·6 |
| 240 | Tobacco and cigarettes | 138·4 | 138·4 | 138·4 | 138·4 | 138·4 |
| 262 | Motor spirit, standard grade (including duty) | 141·8 | 146·5 | 146·5 | 146·5 | 146·5 |
| 262 | Medium fuel oil (950 secs.) | 112·6 | 108·1 | 108·1 | 108·1 | 108·1 |
| 263 | Lubricating oils and greases | 110·8 | 110·1 | 111·1 | 111·1 | 111·1 |

| 1968 SIC | | 1969 Feb. | Aug. | Dec. | 1970 Jan. p | Feb. p |
|---|---|---|---|---|---|---|
| 271 | General chemicals | 102·9 | 104·6 | 104·7 | 104·7 | 104·7 |
| 272 | Pharmaceutical chemicals | 93·7 | 94·3 | 97·2 | 96·9 | 96·9 |
| 272 | Pharmaceutical preparations | 94·8 | 94·6 | 95·3 | 95·3 | 95·3 |
| 273 | Toilet preparations | 122·0 | 123·9 | 124·3 | 125·9 | 126·1 |
| 274 | Paint | 104·8 | 104·7 | 104·8 | 104·9 | 104·9 |
| 275 | Soap | 117·3 | 123·9 | 124·6 | 124·9 | 126·4 |
| 275 | Soapless detergents | 103·2 | 107·5 | 108·9 | 108·9 | 108·9 |
| 276/1 | Synthetic resins and plastics materials | 95·8 | 96·6 | 97·4 | 97·2 | 97·2 |
| 279/7 | Photographic paper and films and photochemical materials | 118·3 | 118·4 | 118·4 | 118·4 | 119·5 |
| 311/2 | Steel sheets | 102·2 | 109·0 | 110·9 | 112·7 | 121·9 |
| 311/2 | Tinplate | 108·4 | 115·9 | 115·9 | 117·6 | 126·5 |
| 311/2 | Other finished steels | 107·9 | 114·6 | 122·0 | 123·3 | 128·9 |

(*Table continued on page 757*)

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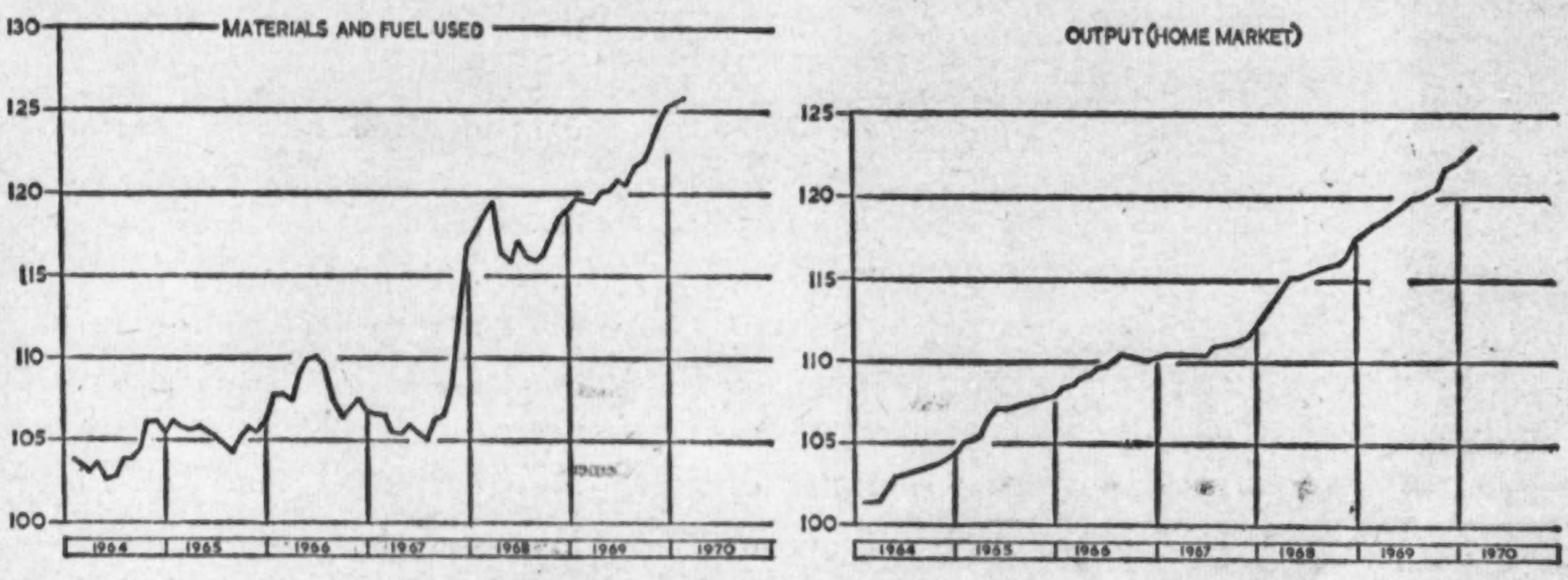
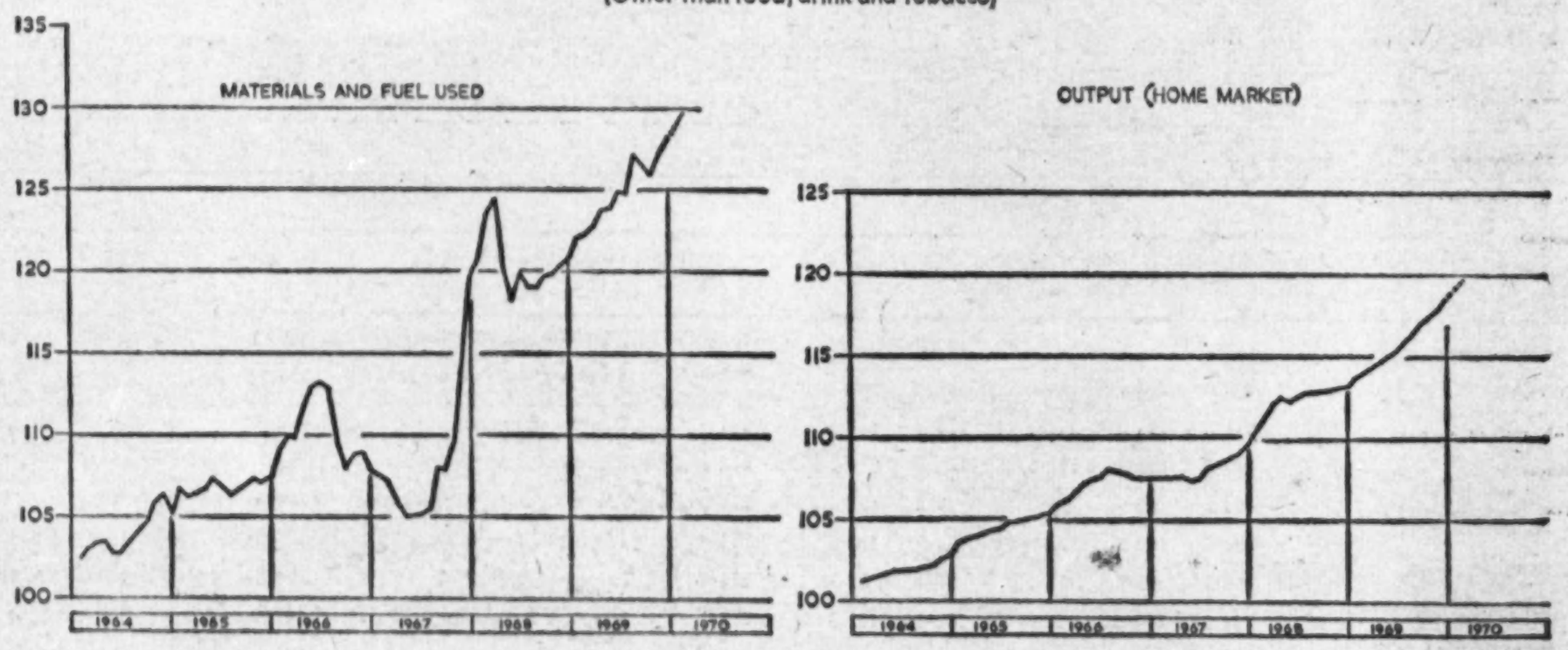
## WHOLESALE PRICES INDEX NUMBER 1963=100

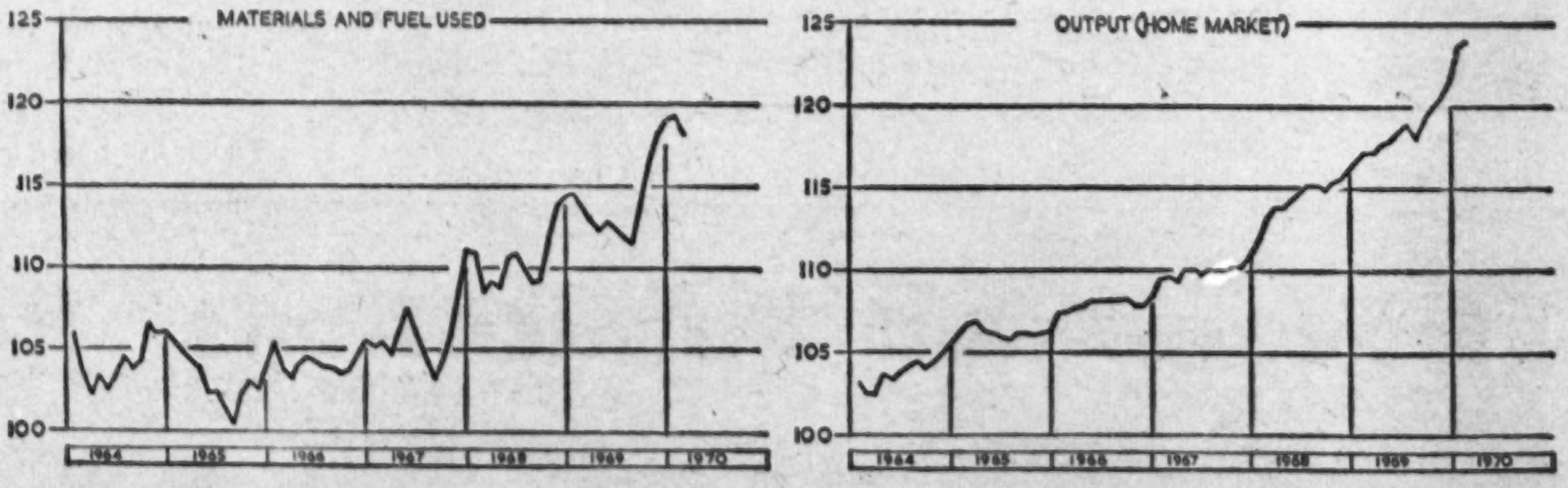
### ALL MANUFACTURING INDUSTRY




### MANUFACTURING INDUSTRY
(Other than food, drink and tobacco)




### FOOD MANUFACTURING INDUSTRY



## WHOLESALE PRICES, *continued*

**Table 3 (a) (*Continued*). Commodities produced in the United Kingdom** — **1963 = 100**

| 1968 SIC | | 1969 Feb. | 1969 Aug. | 1969 Dec. | 1970 Jan. p | 1970 Feb. p |
|---|---|---|---|---|---|---|
| 312 | Steel tubes | 114·0 | 121·3 | 126·5 | 128·1 | 137·6 |
| 313/3 and 313/4 | Iron castings | 115·2 | 118·3 | 120·3 | 121·3 | 121·6 |
| 321 | Aluminium and aluminium alloy products: | | | | | |
| | Rolled | 132·1 | 134·8 | 139·1 | 139·1 | 139·1 |
| | Extruded and drawn | 130·4 | 134·3 | 137·8 | 137·8 | 137·8 |
| | Castings | 136·6 | 140·7 | 142·1 | 151·1 | 151·1 |
| | Forgings | 117·8 | 122·2 | 125·8 | 125·8 | 129·6 |
| 322 | Brass ingot 65-35 B.S. 1400: B.3 delivered | 232·9 | 252·4 | 281·1 | 279·2 | 280·9 |
| 353/1 | Dental goods | 125·6 | 127·5 | 134·9 | 134·8 | 135·0 |
| 365/1 | Gramophone records, etc. | 104·5 | 104·5 | 103·3 | 103·3 | 103·3 |
| 368 | Domestic electrical appliances | 104·2 | 104·0 | 105·3 | 105·5 | 105·6 |
| 391 | Tools and implements | 119·8 | 124·7 | 128·4 | 130·6 | 131·7 |
| 392 | Cutlery, spoons and forks | 118·4 | 120·8 | 124·6 | 128·0 | 128·4 |
| | Cutlery (other than razors and razor blades) | 123·1 | 123·2 | 132·0 | 134·0 | 134·0 |
| | Spoons and forks | 139·9 | 141·6 | 144·3 | 151·6 | 153·2 |
| 399/6 | Domestic hollow-ware | 138·3 | 145·8 | 146·5 | 152·6 | 155·8 |
| 399/7 | Vats, tanks, cisterns and other industrial hollow-ware | 113·4 | 118·2 | 120·1 | 120·1 | 120·4 |
| 399/9 | Domestic gas appliances | 102·0 | 102·0 | 102·6 | 102·6 | 102·7 |
| 411 | Man-made fibres | 87·0 | 87·5 | 87·6 | 87·6 | 87·6 |
| 412, 414/5 and 415 | Man-made fibre yarns | 101·8 | 102·5 | 102·1 | 102·3 | 102·3 |
| 412/1 | Cotton and cotton mixture yarns | 133·8 | 136·2 | 136·5 | 137·1 | .. |
| 413/1 | Cotton cloth | 129·8 | 134·3 | 136·1 | 136·5 | .. |
| 413/5 | Man-made fibres fabrics | 107·8 | 109·3 | 109·1 | 110·2 | 110·2 |
| 413/6 | Linen | 124·1 | 126·3 | 129·7 | 129·7 | 130·3 |
| 414/1 | Wool tops | 85·8 | 87·1 | 83·1 | 83·1 | 83·8 |
| 414/2 | Worsted yarn | 98/3 | 100·4 | 98·2 | 98·3 | 99·6 |
| 414/5 | Woollen fabric | 111·8 | 113·8 | 114·0 | 114·0 | 114·0 |
| 415/1 | Jute yarn | 155·8 | 155·8 | 153·6 | 153·7 | 153·7 |
| 415/2 | Jute piece-goods | 147·0 | 147·0 | 147·0 | 147·0 | 147·0 |
| 416 | Rope, twine and net | 97·5 | 98·9 | 100·8 | 101·0 | 101·0 |
| 417 | Hosiery and other knitted goods | 98·6 | 99·1 | 98·8 | 98·9 | 98·7 |
| 419 | Carpets and rugs | 113·8 | 114·1 | 115·6 | 115·6 | 115·8 |
| 422/2 | Canvas goods and sacks | 113·5 | 106·0 | 112·2 | 112·2 | 112·4 |
| 431/1 | Leather for footwear | 134·6 | 138·1 | 139·0 | 138·3 | .. |
| 432/1 | Travel goods | 117·8 | 120·1 | 120·1 | 122·4 | 122·4 |
| 441–449 | Made-up clothing | 110·4 | 111·5 | 112·1 | 112·5 | 112·6 |
| 441 | Weatherproof outerwear | 105·9 | 107·0 | 107·1 | 107·4 | 107·8 |
| 442 | Men's and boys' tailored outerwear | 108·4 | 109·6 | 110·2 | 110·3 | 110·4 |
| 443 | Women's and girls' tailored outerwear | 112·5 | 113·3 | 114·5 | 115·3 | 115·6 |
| 445/1 | Women's and girls' light outerwear | 114·1 | 114·5 | 115·2 | 115·4 | 115·4 |
| 450 | Footwear | 110·7 | 112·0 | 112·5 | 112·9 | 113·2 |
| 461/1 | Refractory goods, including bricks | 114·0 | 119·2 | 120·7 | 120·7 | 120·7 |
| 461/2 | Non-refractory goods, including bricks | 110·5 | 112·9 | 114·6 | 114·8 | 115·4 |
| | Building bricks, fletton, common, *delivered* | 112·5 | 116·2 | 125·9 | 125·9 | 125·9 |
| | Building bricks, common, other than fletton, *ex-works* | 118·9 | 121·0 | 121·7 | 121·7 | 123·0 |
| 462/3 | Domestic china and earthenware | 125·9 | 130·3 | 131·6 | 132·6 | 132·7 |
| 463/1 | Glass (other than containers) | 111·1 | 112·6 | 112·9 | 112·9 | 112·9 |
| 463/2 | Glass containers | 109·6 | 113·1 | 116·1 | 117·2 | 117·2 |
| 464 | Cement, delivered | 109·0 | 109·0 | 121·1 | 121·1 | 121·1 |
| 469/1 | Abrasive paper and cloth | 113·8 | 120·2 | 120·2 | 120·2 | 120·2 |
| 469/2 | Cast stone and cast concrete products | 110·6 | 111·3 | 111·6 | 111·9 | 111·9 |
| 471/1 | Home-grown hardwood, sawn | 111·6 | 114·0 | 115·5 | 115·8 | 115·8 |
| 471/2 | Building joinery | 126·5 | 129·2 | 131·7 | 131·8 | 133·1 |
| 472 | Domestic furniture | 120·6 | 121·6 | 122·1 | 123·8 | 124·3 |
| 473 | Bedding, etc. | 117·9 | 122·2 | 122·3 | 124·2 | 124·6 |
| 481 | Paper and board | 115·9 | 117·8 | 119·8 | 124·2 | 124·5 |
| 482/1 | Cardboard boxes, cartons and fibreboard packing cases | 120·7 | 122·7 | 126·3 | 127·3 | 129·9 |
| 482/2 | Packaging products of paper, etc. | 113·7 | 115·8 | 119·9 | 122·3 | 123·0 |
| | Paper bags | 112·0 | 112·3 | 115·3 | 119·9 | 121·3 |
| 483 | Manufactured stationery | 116·9 | 119·3 | 123·9 | 124·0 | 124·3 |
| 484/1 | Wallpaper | 124·2 | 124·2 | 124·1 | 129·3 | 129·3 |
| 491/1 | Rubber tyres and tubes | 105·4 | 112·3 | 113·6 | 115·1 | 116·2 |
| 491/2 | Rubber goods (other than tyres and tubes) | 111·4 | 114·5 | 118·7 | 119·4 | 119·4 |
| 492 | Linoleum and felt base | 129·7 | 129·7 | 132·7 | 133·4 | 133·4 |
| 493 | Brushes and brooms | 114·3 | 115·0 | 116·3 | 117·9 | 119·2 |
| 494/1 | Toys and games | 117·3 | 119·2 | 119·7 | 121·3 | 123·2 |
| 494/2 | Perambulators, etc. | 117·5 | 121·6 | 122·8 | 123·5 | 124·6 |
| 494/3 | Sports equipment | 111·7 | 113·0 | 114·8 | 116·6 | .. |
| 495/1 | Pens and pencils | 114·2 | 114·7 | 117·0 | 117·2 | 117·2 |
| 495/2 | Other stationers' goods | 112·8 | 115·4 | 116·0 | 116·0 | 116·0 |
| 496/2 | Plastics products (other than components and accessories) | 93·3 | 93·7 | 95·2 | 95·1 | 95·9 |

*(Continued on next page)*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## WHOLESALE PRICES, *continued*

**Table 3 (b). Commodities wholly or partly imported into the United Kingdom** **1963 = 100**

| | 1969 | | | 1970 | |
|---|---|---|---|---|---|
| | Feb. | Aug. | Dec. | Jan. | Feb. |
| Hides and skins | 150·1 | 152·1 | 147·4 | 146·8 | 142·3 |
| Imported | 146·5 | 145·7 | 145·7 | 147·2 | 144·9 |
| Native | 155·0 | 160·7 | 149·7 | 146·3 | 138·7 |
| Non-ferrous metals: | | | | | |
| Aluminium, virgin ingot delivered | 136·7 | 136·7 | 141·8 | 141·8 | 141·8 |
| Copper, ex-ship, wharf or warehouse† | 232·1 | 290·2 | 307·0 | 293·7 | 299·3 |
| Lead, ex-ship wharf or warehouse† | 172·4 | 210·9 | 222·7 | 216·5 | 222·9 |
| Nickel, refined, delivered§ | 153·6 | 153·6 | 190·0 | 190·0 | 190·0 |
| Tin ingot, min. 99·75% settlement price† | 151·0 | 161·5 | 177·6 | 178·8 | 175·3 |
| Zinc, ex-ship, wharf or warehouse† | 147·3 | 162·0 | 170·9 | 166·6 | 164·1 |
| Oil, resins and gums: | | | | | |
| Palm oil, c.i.f. in bulk | 88·2 | 93·4 | 122·8 | 122·8 | 122·8 |
| Whale oil, crude | 131·4 | 147·3 | 159·7 | 161·5 | 161·5 |
| Pyrites, c.i.f., United Kingdom ports | 159·1 | 160·9 | 159·7 | 159·7 | .. |
| Natural rubber | 103·1 | 123·3 | 101·2 | 106·2 | 106·6 p |
| Sulphur, crude (for acid making), c.i.f. | 205·5 | 166·9 | 166·9 | 124·9 | .. |

| | 1969 | | | 1970 | |
|---|---|---|---|---|---|
| | Feb. | Aug. | Dec. | Jan. | Feb. |
| Textiles: | | | | | |
| Cotton, raw | 103·5 | 102·0 | 105·7 | 105·6 | 105·2 |
| Jute, raw, PWC grades, c.i.f., Dundee | 175·7 | 156·8 | 158·7 | 158·0 | 158·5 |
| Jute, raw, PWB grades, c.i.f. Dundee | 159·0 | 144·8 | 145·3 | 145·3 | 145·5 |
| Silk, raw, delivered mill | 129·3 | 139·9 | 158·5 | 159·6 p | 159·6 p |
| Sisal, East Africa No. 1 grade, c.i.f. London | 53·6 | 51·6 | 51·6 | 51·6 | .. |
| Wool, raw | 85·3 | 83·4 | 78·1 | 78·1 | 78·0 p |
| Crossbred, medium and coarse, c.i.f. UK | 68·8 | 70·7 | 64·1 | 64·0 | 63·6 p |
| Crossbred, fine, c.i.f. UK | 87·2 | 84·5 | 78·0 | 78·0 | 77·4 p |
| Merino, c.i.f. UK | 96·6 | 91·5 | 86·3 | 86·3 | 86·3 p |
| Timber: | | | | | |
| Imported hardwood (ex-yard or wharf) | 130·6 | 134·2 | 135·1 | 136·5 p | 137·0 p |
| Imported plywood (delivered to consumers) | 131·7 | 135·9 | 141·2 | 141·5 | 141·4 |
| Imported softwood (delivered to consumers) | 130·8 | 132·9 | 134·7 | 135·2 | 135·9 |
| Woodpulp, imported | 122·6 | 127·8 | 130·1 | 138·5 p | 138·0 p |

†L.M.E. means of buyers' and sellers' prices at close of morning session.
§Producers' price.

## INDEX NUMBERS OF WHOLESALE PRICES

*The index numbers of wholesale prices relative to* 1963 = 100 *supersede those previously published on the base* 1954 = 100. *For the convenience of those who use the index numbers in long-term contracts to take account of changes in the costs of materials, the Board of Trade will continue to publish indices relating to materials used in broad sectors of industry on the base* 1954 = 100 *until December* 1971. *From January* 1969 *the index numbers in the accompanying table have been given the month to month movements of the equivalent index in the* 1963 = 100 *Series. For users of other* 1954 *based index numbers who wish to continue the series in the way, conversion factors will be provided on request.*

**Price index numbers of materials purchased** **1954 = 100**

| 1958 SIC | | 1969 Dec. | 1970 Jan. p | 1970 Feb. p |
|---|---|---|---|---|
| | MATERIALS PURCHASED BY MANUFACTURING INDUSTRY | | | |
| Orders III to XVI | Basic materials and fuel used in manufacturing industry | 128·2 | 128·5 | 128·7 |
| | Basic materials | 124·0 | 124·2 | 124·3 |
| | Fuel | 160·4 | 162·0 | 163·3 |
| Orders IV to XVI | Basic materials and fuel used in manufacturing industry other than food, drink and tobacco manufacturing industries | 131·8 | 132·2 | 133·1 |
| | Basic materials other than fuel | 126·8 | 126·9 | 127·8 |
| | MATERIALS AND FUEL PURCHASED BY SELECTED BROAD SECTORS OF INDUSTRY | | | |
| 211 to 229 | Food manufacturing industries | 121·0 | 121·4 | 120·3 |
| 263 to 277 | Chemicals and allied industries | 128·5 | 128·3 | 128·8 |
| 331 to 349 (excluding 342) | Mechanical engineering industries | 174·7 | 175·8 | 179·7 |
| 361 | Electrical machinery industry | 173·4 | 173·9 | 176·5 |
| Order X | Textile industries | 100·1 | 100·6 | 100·7 |
| Order XIV | Timber industry | 143·8 | 144·5 | 145·2 |
| 481 to 483 | Paper industries | 131·3 | 135·3 | 135·4 |
| Order XVII | Construction materials | 150·6 | 151·3 | 152·5 |
| Part of Order XVII | House building materials | 153·6 | 154·4 | 155·4 |

## *Wholesale price index numbers: corrections*

THE FOLLOWING amendments should be made to the tables on wholesale price index numbers, which were published in the *Journal* of February 25.

**Page 514:** Table A(i). 'Foodstuffs and tobacco'; effect on price index of basic materials and fuel used in manufacturing industry: delete +1.4, insert +1.3.

**Page 518:** Table 1. Index for basic materials used in manufacturing industry; percentage change 1965/6: delete +2.5, insert +2.3.

**Page 520:** Table 3a. Index for 'coal', annual average 1968: delete 112.8, insert 112.9.

**Page 522:** Table 3b. Index for 'wood pulp, imported', annual average 1967: delete 104, insert 104.8.

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*Airline Operations* (*Q*)
*Domestic Passenger Traffic* (*Q*)
*Domestic Passengers – international and cabotage* (*Q*)

# EFTA trade figures for 1969

EFTA TRADE FIGURES for 1969, now available, show that both exports and imports of the member countries were sharply higher than in 1968, and that the rate of growth accelerated throughout the year.

Total commodity imports of the eight† countries combined amounted to US$43,939 million, and exports to $38,215 million respectively 11 per cent and 15 per cent higher than in 1968. Trade among the EFTA countries (measured by exports f.o.b.) rose by 17 per cent, and for the first time topped $10,000. million Exports to the EEC were buoyant, rising 18½ per cent, but imports from the Six were only 12 per cent higher, resulting in a further narrowing of EFTA's trade deficit with the EEC. Trade with the United States was comparatively stagnant after rapid growth in 1968: exports rose only 1½ per cent, while imports were up 7½ per cent. Exports to Eastern Europe and to the rest of the world increased by 11 per cent and 16 per cent respectively while imports were up by 10 per cent and 6 per cent.

The 1969 trade figures make it possible to measure the effects of 10 years of the existence of EFTA, including three years of full free trade in industrial goods. Whereas total EFTA imports (up 108 per cent) and exports (up 111 per cent) have slightly more than doubled since 1959, the last year before tariff cutting in EFTA began, trade between the EFTA countries (186 per cent higher) has nearly tripled. This represents an annual average rate of growth of 11 per cent. Among the Nordic countries of EFTA alone, the total increase amounts to 284 per cent. Trade with the EEC – in both directions – has risen by about 130 per cent. Imports from the United States show a similar growth (up 135 per cent), but EFTA exports to the United States have increased by only 98 per cent.

### Total trade

All the EFTA countries achieved impressive increases in their total exports in 1969. Exports by Austria and Finland were more than 21 per cent up. Finland also showed the highest growth in imports (up 27 per cent), while United Kingdom and Norwegian imports rose only 5 per cent and 9 per cent respectively. The seasonally adjusted quarterly rates of growth for total EFTA trade rose steadily through 1969; in the last quarter imports were 6 per cent higher than in the third quarter, and exports 7.5 per cent higher.

### Intra-EFTA trade

The 17 per cent increase in intra-EFTA exports (f.o.b.) in 1969, one of the highest increases in the past decade, was greatly influenced by the improved trading position of the United Kingdom. British sales to EFTA were 22 per cent higher than in 1968. Austria and Finland also increased their exports by over 20 per cent. The fastest-growing markets for their partners' exports were Finland and Switzerland.

Since 1959, Austria and Portugal have increased their sales to EFTA by over 400 per cent. For most other EFTA countries the increase has been 200 per cent or more, the exceptions being Denmark (157 per cent) and the United Kingdom (130 per cent). In terms of imports from member countries, the United Kingdom and Norwegian markets have grown slowest, and the Austrian, Swiss and Swedish markets most rapidly.

Seasonally adjusted data show an increase in intra-EFTA exports of 8.6 per cent in the last quarter of 1969 as compared with the third quarter.

### EFTA trade with the EEC

EFTA imports from the EEC in 1969 amounted to $13,578 million, and exports to $9,833 million. The further reduction in 1969 in EFTA's trade deficit with the EEC continues an improvement which began in 1968, after four years in which EFTA imports from the EEC grew much more rapidly than exports.

EFTA exports to France increased by 23.4 per cent in 1969. Exports to the Federal Republic of Germany rose 19 per cent, and to all the other EEC countries by over 15 per cent. Imports from Belgium/Luxembourg and the Federal Republic of Germany were also more than 15 per cent up, but imports from Italy rose only by 4 per cent. Only Denmark and Finland recorded higher increases in imports from than in exports to the EEC. United Kingdom imports from the Six – up 2.7 per cent – rose particularly slowly, and imports from Italy actually fell. Seasonally adusted, exports to the EEC in the last quarter of 1969 rose by 8.8 per cent, and imports by 7.3 per cent.

### EFTA trade with the United States

Although EFTA exports to the United States rose only 1½ per cent in 1969, this followed an increase of 21 per cent in 1968. There were falls in the exports of Norway, Sweden and the United Kingdom, and in the imports of Portugal. Seasonally adjusted figures show fairly low quarterly rates of growth during 1969. An improvement in the third quarter, to 4.3 per cent for imports and 5.3 per cent for exports, was followed by growth of only 1 per cent and 0.6 per cent respectively in the fourth quarter.

### EFTA trade with Eastern Europe

Trade of EFTA with Eastern Europe amounted to about $2,000 million in each direction in 1969, with imports 10 per cent, and exports 11 per cent, higher than in 1968. Swedish and Swiss trade with the area grew particularly sharply. Since 1959, imports from Eastern Europe have grown 114 per cent and exports 140 per cent, the most important increases being in trade by Sweden, Switzerland, the United Kingdom and Austria.

### EFTA trade with the rest of the world

In the last 10 years trade with the rest of the world taken together has grown very slowly, at an average annual rate of 4.3 per cent for imports and 5.3 per cent for exports. The 1969 increase was thus exceptionally steep. Denmark, Finland and Sweden all increased their exports by over 20 per cent, while the sharpest increases in imports were by Finland (37 per cent) and Switzerland (19 per cent).

†Iceland which joined EFTA on March 1, 1970 is not included in these figures.

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# Turnover of the catering trades, laundries and dry cleaners and hairdressers in January

**Note:** All figures in this commentary are at current prices.

THE TURNOVER of the catering trades in January showed an increase of 3 per cent compared with the very high figure for January 1969. The turnover of laundries and dry cleaners was also relatively buoyant, with an increase of 3 per cent on a year earlier. Hairdressers recorded a decline of 1 per cent between these two periods.

**Catering trades**

After allowing for seasonal influences, the turnover of the catering trades in the three months ended January 1970 was 1 per cent higher than in the preceding three months, a high result for January compensating for the somewhat dull December figure.

**Catering trades' turnover seasonally adjusted index numbers of sales per week 1964 = 100**

| | 1968 | 1969 | | |
|---|---|---|---|---|
| 1st quarter | 116 | 122 | | |
| 2nd quarter | 116 | 126 | 3 months ended Octobrr 1969 | 128 |
| 3rd quarter | 118 | 126 | 3 months ended January 1970 | 129 |
| 4th quarter | 122 | 129 | | |

This year's January period covered the four weeks January 4 to January 31, and thus included neither the end of Christmas week nor the New Year, both of which were in the January period in 1969 (December 29, 1968, to January 25). Taking this difference into account the 3 per cent increase on a year earlier points to an increase in the underlying level of turnover at least as large as was recorded in the fourth quarter of 1969.

The turnover of public houses increased by 17 per cent over the two years January 1968 to January 1970, much the same increase compared with two years earlier as in the fourth quarter. The 12 per cent increase compared with two years earlier in the turnover of restaurants, cafes, etc. in January was also similar to that recorded in the fourth quarter. The 10 per cent increase between January 1969 and January 1970 in the turnover of licensed hotels, on top of the 14 per cent increase between January 1968 and January 1969 showed particularly buoyant trade in January 1970.

The 2 per cent decrease in the turnover of canteens between January 1969 and January 1970 reflected a relatively high figure for the former month.

(*Continued on next page*)

## Table 1. Catering

Index numbers of turnover per week *and percentage increase on a year earlier*† 1964 = 10

| Kind of Business (Turnover in 1964) | | Year | 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | Jan. | Feb. | Mar.* | Apr. | May | June* | July | Aug. | Sept.* | Oct. | Nov. | Dec.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total all Caterers (£1,985 million) | 1966 | 111 | 95 | 114 | 128 | 108 | 91 | 94 | 99 | 109 | 110 | 121 | 130 | 130 | 125 | 108 | 100 | 114 |
| | 1967 | 113 | 100 | 115 | 131 | 108 | 95 | 98 | 104 | 108 | 111 | 123 | 133 | 133 | 128 | 108 | 101 | 114 |
| | 1968 | 117 | 100 | 120 | 135 | 115 | 96 | 100 | 103 | 115 | 114 | 128 | 135 | 138 | 132 | 115 | 109 | 119 |
| | 1969 | 126 | 107 | 128 | 145 | 123 | 108 | 104 | 109 | 124 | 124 | 136 | 147* | 148 | 140 | 126 | 116 | 127 |
| | 1970 | | | | | | 111 | | | | | | | | | | | |
| | *1969* | *7* | *7* | *7* | *7* | *7* | *12* | *4* | *5* | *8* | *9* | *6* | *9* | *7* | *6* | *9* | *6* | *7* |
| | *1970* | | | | | | *3* | | | | | | | | | | | |
| Licensed hotels and holiday camps (£286 million) | 1966 | 111 | 76 | 117 | 157 | 94 | 71 | 73 | 83 | 96 | 111 | 140 | 165 | 166 | 143 | 110 | 83 | 91 |
| | 1967 | 114 | 82 | 120 | 158 | 97 | 74 | 79 | 90 | 97 | 116 | 143 | 161 | 166 | 149 | 111 | 88 | 93 |
| | 1968 | 122 | 83 | 128 | 169 | 107 | 76 | 81 | 90 | 107 | 119 | 153 | 172 | 180 | 159 | 121 | 100 | 101 |
| | 1969 | 131 | 91 | 140 | 180 | 116 | 87 | 87 | 97 | 120 | 132 | 161 | 186* | 191 | 165 | 130 | 107 | 112 |
| | 1970 | | | | | | 95 | | | | | | | | | | | |
| | *1969* | *8* | *9* | *9* | *6* | *9* | *14* | *6* | *8* | *12* | *11* | *6* | *8* | *6* | *4* | *7* | *8* | *11* |
| | *1970* | | | | | | *10* | | | | | | | | | | | |
| Restaurants, cafes, etc., and fish and chip shops (£521 million) | 1966 | 111 | 97 | 110 | 132 | 103 | 93 | 98 | 99 | 107 | 106 | 117 | 133 | 134 | 131 | 106 | 100 | 102 |
| | 1967 | 112 | 100 | 110 | 134 | 105 | 95 | 102 | 102 | 107 | 105 | 117 | 132 | 137 | 133 | 109 | 103 | 104 |
| | 1968 | 116 | 101 | 116 | 139 | 109 | 96 | 103 | 103 | 115 | 108 | 122 | 135 | 142 | 140 | 113 | 108 | 108 |
| | 1969 | 122 | 104 | 123 | 147 | 116 | 103 | 103 | 105 | 120 | 116 | 130 | 145* | 151 | 145 | 124 | 114 | 112 |
| | 1970 | | | | | | 107 | | | | | | | | | | | |
| | *1969* | *5* | *3* | *6* | *5* | *6* | *7* | *—* | *2* | *4* | *7* | *6* | *8* | *6* | *3* | *10* | *6* | *4* |
| | *1970* | | | | | | *4* | | | | | | | | | | | |
| Public houses (£1,033 million) | 1966 | 112 | 98 | 116 | 122 | 114 | 94 | 96 | 102 | 114 | 112 | 120 | 123 | 123 | 120 | 109 | 103 | 128 |
| | 1967 | 115 | 103 | 117 | 127 | 113 | 99 | 101 | 109 | 111 | 114 | 124 | 131 | 128 | 123 | 107 | 102 | 126 |
| | 1968 | 118 | 102 | 121 | 128 | 120 | 100 | 101 | 105 | 119 | 115 | 127 | 130 | 130 | 125 | 115 | 111 | 131 |
| | 1969 | 128 | 111 | 131 | 140 | 130 | 115 | 107 | 112 | 129 | 127 | 135 | 144* | 142 | 135 | 127 | 118 | 141 |
| | 1970 | | | | | | 118 | | | | | | | | | | | |
| | *1969* | *9* | *9* | *8* | *9* | *8* | *14* | *6* | *6* | *8* | *10* | *7* | *11* | *9* | *8* | *10* | *6* | *8* |
| | *1970* | | | | | | *2* | | | | | | | | | | | |
| Canteens (‡) (£145 million) | 1966 | 106 | 110 | 105 | 98 | 112 | 107 | 111 | 113 | 104 | 110 | 103 | 95 | 93 | 104 | 110 | 115 | 111 |
| | 1967 | 105 | 108 | 105 | 95 | 110 | 109 | 110 | 105 | 111 | 107 | 100 | 94 | 90 | 99 | 108 | 116 | 108 |
| | 1968 | 109 | 114 | 107 | 101 | 116 | 110 | 114 | 117 | 106 | 113 | 104 | 99 | 97 | 104 | 114 | 121 | 114 |
| | 1969 | 113 | 120 | 113 | 104 | 117 | 119 | 119 | 123 | 111 | 116 | 111 | 99* | 101 | 111 | 117 | 121 | 113 |
| | 1970 | | | | | | 116 | | | | | | | | | | | |
| | *1969* | *4* | *6* | *5* | *4* | *1* | *8* | *4* | *5* | *5* | *3* | *7* | *- 1* | *5* | *7* | *3* | *—* | *- 1* |
| | *1970* | | | | | | *- 2* | | | | | | | | | | | |

† The monthly periods consist of four weeks, except those marked * which are of five weeks. The January 1970 period was the four weeks from January 4, 1970, to January 31, 1970, the January 1969 period was from December 29, 1968, to January 25, 1969.
‡ Includes catering contractors other than outside catering contractors, which are included with restaurants, cafes, etc.

### Laundries and dry cleaners

Laundries' turnover in January showed an increase of 4 per cent compared with January 1969, somewhat larger than the increase on a year earlier recorded in the fourth quarter. The turnover of dry cleaners was unchanged between January 1969 and January 1970: a decrease of 3 per cent on a year earlier had been recorded in the fourth quarter.

### Hairdressers

The turnover of women's hairdressers was 2 per cent less in January than in January 1969, much in line with the average decrease recorded between the second half of 1968 and the second half of 1969. Turnover in January 1969 was relatively high.

The turnover of men's hairdressers continued to show a small increase on a year earlier.

### Table 2. Laundries and dry cleaners (excluding launderettes)

Index numbers of turnover per week *and percentage increase on a year earlier†* 1966 = 100

| Kind of Business Turnover in 1966 (Provisional estimates) | | Year | 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | Jan. | Feb. | Mar.* | Apr. | May | June* | July | Aug. | Sept.* | Oct. | Nov. | Dec.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total all Laundries and Dry-Cleaners (£137 million) | 1966 | 100 | 96 | 102 | 102 | 100 | 89 | 97 | 101 | 96 | 107 | 103 | 104 | 100 | 101 | 106 | 102 | 93 |
| | 1967 | 100 | 97 | 104 | 102 | 99 | 94 | 100 | 96 | 104 | 104 | 104 | 104 | 99 | 102 | 104 | 101 | 93 |
| | 1968 | 100 | 96 | 103 | 101 | 100 | 90 | 97 | 100 | 100 | 105 | 102 | 104 | 100 | 100 | 104 | 104 | 94 |
| | 1969 | 101 | 97 | 105 | 103 | 100 | 93 | 97 | 101 | 102 | 109 | 103 | 103* | 101 | 104 | 106 | 104 | 92 |
| | 1970 | | | | | | 96 | | | | | | | | | | | |
| | *1969* | *1* | *1* | *2* | *2* | *–* | *4* | *– 1* | *1* | *2* | *4* | *1* | *—* | *1* | *4* | *2* | *—* | *– 2* |
| | *1970* | | | | | | *3* | | | | | | | | | | | |
| Laundries (£81 million) | 1966 | 100 | 98 | 101 | 100 | 100 | 95 | 100 | 100 | 96 | 105 | 102 | 104 | 98 | 99 | 105 | 103 | 95 |
| | 1967 | 100 | 97 | 103 | 100 | 99 | 98 | 100 | 95 | 102 | 104 | 103 | 104 | 99 | 99 | 102 | 102 | 93 |
| | 1968 | 101 | 97 | 102 | 101 | 102 | 95 | 98 | 99 | 98 | 105 | 103 | 105 | 100 | 99 | 105 | 106 | 96 |
| | 1969 | 104 | 101 | 105 | 105 | 103 | 99 | 100 | 103 | 101 | 110 | 105 | 107* | 103 | 105 | 108 | 108 | 96 |
| | 1970 | | | | | | 103 | | | | | | | | | | | |
| | *1969* | *3* | *3* | *3* | *4* | *2* | *4* | *2* | *4* | *3* | *4* | *2* | *2* | *3* | *6* | *3* | *2* | *—* |
| | *1970* | | | | | | *4* | | | | | | | | | | | |
| Dry-cleaners, etc. (£56 million) | 1966 | 100 | 93 | 104 | 104 | 99 | 81 | 93 | 103 | 97 | 111 | 103 | 105 | 102 | 105 | 108 | 101 | 90 |
| | 1967 | 101 | 96 | 105 | 104 | 99 | 88 | 101 | 99 | 106 | 106 | 104 | 103 | 100 | 108 | 107 | 99 | 91 |
| | 1968 | 99 | 94 | 103 | 100 | 98 | 82 | 96 | 102 | 104 | 105 | 101 | 101 | 99 | 101 | 103 | 102 | 90 |
| | 1969 | 97 | 92 | 103 | 99 | 95 | 84 | 91 | 98 | 103 | 108 | 100 | 96* | 97 | 104 | 103 | 98 | 85 |
| | 1970 | | | | | | 85 | | | | | | | | | | | |
| | *1969* | *– 2* | *– 3* | *—* | *– 1* | *– 3* | *3* | *– 5* | *– 4* | *– 1* | *2* | *– 1* | *– 4* | *– 2* | *3* | *—* | *– 3* | *– 5* |
| | *1970* | | | | | | *—* | | | | | | | | | | | |

For notes see Table 1

### Table 3. Hairdressers

Index numbers of turnover per week *and percentage increase on a year earlier†* 1966=100

| Kind of Business (Turnover in 1966 Provisional estimates) | | Year | 1st qtr. | 2nd qtr. | 3rd qtr. | 4th qtr. | Jan. | Feb. | Mar.* | Apr. | May | June* | July | Aug. | Sept.* | Oct. | Nov. | Dec.* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total all Hairdressers (£136 million) | 1966 | 100 | 95 | 100 | 102 | 103 | 91 | 94 | 99 | 100 | 102 | 99 | 104 | 103 | 100 | 100 | 98 | 108 |
| | 1967 | 102 | 98 | 102 | 104 | 104 | 96 | 98 | 101 | 101 | 103 | 102 | 105 | 105 | 101 | 101 | 101 | 110 |
| | 1968 | 104 | 98 | 104 | 106 | 107 | 94 | 98 | 102 | 104 | 103 | 105 | 108 | 107 | 105 | 103 | 103 | 113 |
| | 1969 | 104 | 101 | 105 | 106 | 106 | 99 | 98 | 104 | 106 | 107 | 104 | 107* | 108 | 103 | 105 | 104 | 107 |
| | 1970 | | | | | | 99 | | | | | | | | | | | |
| | *1969* | *1* | *3* | *1* | *—* | *– 1* | *5* | *—* | *3* | *1* | *4* | *– 1* | *—* | *1* | *– 1* | *2* | *1* | *– 5* |
| | *1970* | | | | | | *– 1* | | | | | | | | | | | |
| Men's hairdressers and men's hairdresser-tobacconists (£27 million) | 1966 | 100 | 94 | 98 | 104 | 105 | 95 | 92 | 93 | 95 | 98 | 100 | 105 | 103 | 103 | 102 | 98 | 113 |
| | 1967 | 103 | 97 | 99 | 106 | 108 | 99 | 98 | 96 | 96 | 98 | 103 | 109 | 105 | 104 | 102 | 102 | 116 |
| | 1968 | 105 | 97 | 103 | 109 | 110 | 100 | 98 | 95 | 100 | 98 | 109 | 109 | 108 | 109 | 103 | 104 | 121 |
| | 1969 | 108 | 100 | 105 | 112 | 115 | 101 | 98 | 99 | 102 | 103 | 109 | 112* | 114 | 110 | 111 | 108 | 122 |
| | 1970 | | | | | | 103 | | | | | | | | | | | |
| | *1969* | *3* | *2* | *2* | *3* | *4* | *1* | *1* | *4* | *1* | *5* | *—* | *2* | *5* | *1* | *8* | *4* | *1* |
| | *1970* | | | | | | *2* | | | | | | | | | | | |
| Women's hairdressers and men's and women's hairdressers (£109 million) | 1966 | 100 | 95 | 101 | 102 | 102 | 90 | 94 | 101 | 102 | 103 | 99 | 104 | 102 | 99 | 99 | 98 | 106 |
| | 1967 | 102 | 99 | 103 | 103 | 103 | 95 | 99 | 103 | 103 | 104 | 101 | 104 | 104 | 101 | 100 | 100 | 107 |
| | 1968 | 103 | 98 | 105 | 105 | 106 | 92 | 98 | 104 | 106 | 105 | 103 | 107 | 107 | 103 | 103 | 103 | 110 |
| | 1969 | 103 | 101 | 106 | 104 | 102 | 99 | 97 | 106 | 107 | 109 | 102 | 106* | 106 | 101 | 102 | 102 | 102 |
| | 1970 | | | | | | 97 | | | | | | | | | | | |
| | *1969* | *—* | *3* | *1* | *– 1* | *– 3* | *7* | *– 1* | *2* | *1* | *4* | *– 1* | *– 1* | *– 1* | *– 2* | *—* | *– 1* | *– 7* |
| | *1970* | | | | | | *– 2* | | | | | | | | | | | |

For notes see Table 1


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# LONRHO

## REVIEW OF OPERATIONS

***The Annual General Meeting of Lonrho Limited will be held on 7th April at the Chartered Insurance Institute, 20 Aldermanbury, London, E.C.2. The following are extracts from the annual review of operations***

### TEN-YEAR FINANCIAL RECORD

| Year ended September 30 | Net Profit before Taxation £000's | Net Profit after Taxation and Minorities £000's | Cost of Dividend £000's | Fixed Assets £000's | Net current assets and Investments £000's | Net earnings per Ordinary Share* pence |
|---|---|---|---|---|---|---|
| 1960 | 113 | 65 | 49 | 838 | 1,172 | 1.36 |
| 1961 | 158 | 114 | 77 | 1,070 | 1,432 | 1.72 |
| 1962 | 469 | 221 | 126 | 1,330 | 1,881 | 3.35 |
| 1963 | 502 | 239 | 161 | 2,177 | 1,800 | 3.48 |
| 1964 | 1,033 | 256 | 161 | 7,142 | 3,151 | 3.73 |
| 1965 | 1,823 | 601 | 189 | 10,699 | 2,466 | 8.75 |
| 1966 | 3,056 | 1,220 | 384 | 14,313 | 1,533 | 17.78 |
| 1967 | 3,598 | 1,446 | 812 | 19,106 | 825 | 15.61 |
| 1968 | 7,169 | 2,635 | 1,424 | 43,979 | 5,994 | 18.66 |
| 1969 | 14,438 | 5,010 | 2,483 | 87,281 | 17,927 | 24.47 |

*Adjusted for scrip issues

The pre-tax profit for last year was £14.4 million on a turnover of £154 million. This was a record. Assets have risen to £172 million and there are now nearly 100,000 employees in the group spread over 25 countries. Shareholders number 50,000, of whom 97 per cent are United Kingdom residents.

After several years of rapid growth the group is now experiencing considerable expansion from within and shareholders can look forward to further progress and increased financial return in the years to come.

It is your company's policy to give particular encouragement to the expansion of its mining interests. The emphasis is currently in Africa but we shall not neglect suitable opportunities elsewhere in the world.

The Ashanti Goldfields Corporation in Ghana milled 619,000 tons of ore to produce 486,000 ounces of gold. These record figures were achieved despite a one-week strike of all labour in March, 1969. Labour relations however are now excellent and production for the current year will be increased to 500,000 ounces of gold from 690,000 tons milled. Plans to expand output still further are well advanced and capital expenditure for the year is expected to reach £1 million.

Major exploration projects are in progress throughout Africa and in Europe. Prospects have also been investigated in Australia, Peru and Brazil; and possibilities for the exploitation of worthwhile mineral occurrences in other new areas are under constant scrutiny.

It is planned to operate a platinum mine on the Merensky ree[f] in the Rustenburg district on a scale which will yield approximately 50,000 ounces of platinum metal per annum during its initial stages. As soon as the present drilling programme has been completed in the adjacent areas it is proposed to open a second mine which will give a combined output of approximately 250,000 ounces of platinum per annum. Apart from platinum, substantial additional revenue will accrue from by-products such as nickel and copper and other platinum group metals. The first mine should start production early in 1971 and it is planned that the second mine should begin operations during 1973.

Other current exploration projects of particular note are for diamonds at Mothae in Lesotho; asbestos at Havelock in Swaziland; and bauxite at Mount Mlanje in Malawi.

Options have recently been taken up on uranium-bearing ground near Klerksdorp, Transvaal and also in the western part of that province over ground which contains nickel-rich pipes. It is too early to predict the possibilities of the pipes but work is in progress to evaluate these deposits.

**Extracts from Circular to Shareholders dated March 9, 1970**

*'In August 1969, Lonrho Limited announced details of drilling results on its platinum areas in the Rustenburg district.*

*'As at today's date, 26 boreholes have been drilled on the company's properties. These boreholes, and deflections therefrom, have resulted in 55 intersections of the Merensky reef, all but two of which have disclosed payable values. These results have confirmed the existence of large tonnages of economically mineable ore.*

*'Steps are now being taken to bring the first two platinum mines into production.'*

***Full copies of report available from the Secretary, Lonrho Limited, Cheapside House, London, E.C.2.***

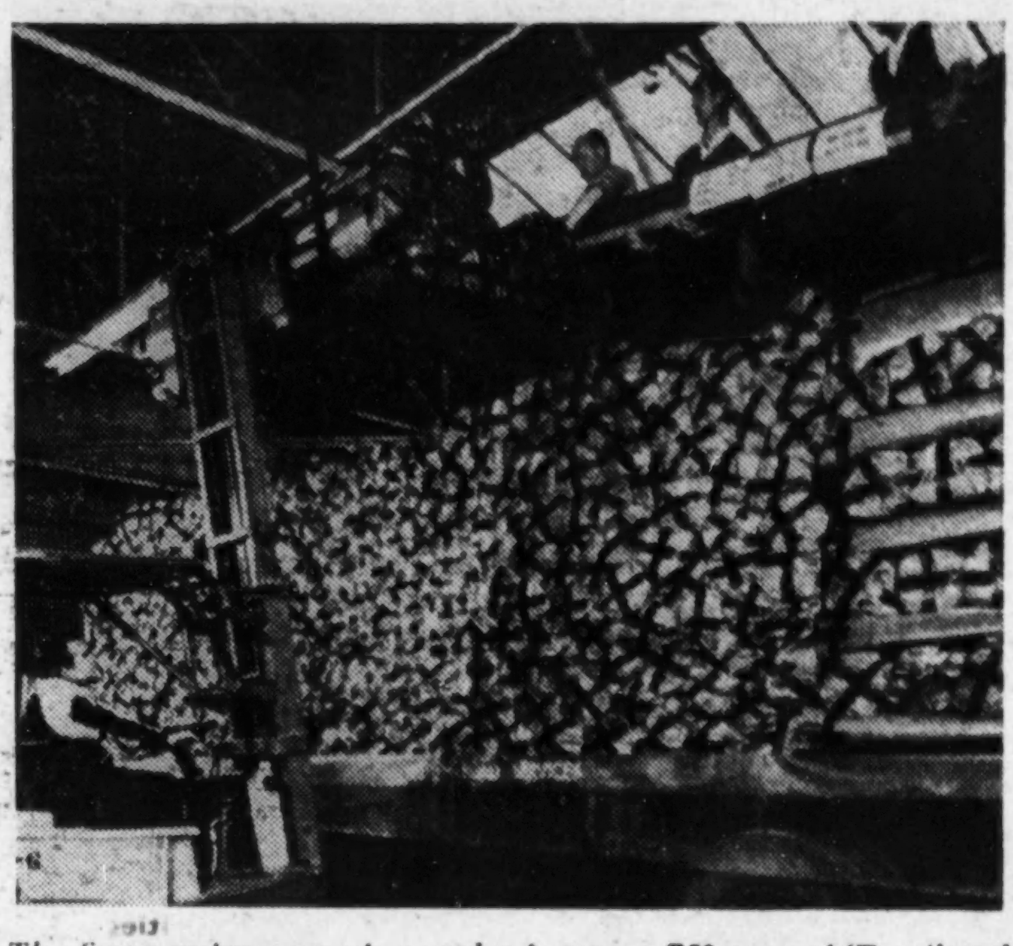
## New companies registered

BELOW ARE DETAILS of new companies registered in Great Britain during February 1970 showing nominal capital. The figures are exclusive of unlimited companies and companies limited by guarantee:

| Nominal Capital | Total | Public Companies | Private Companies |
|---|---|---|---|
| Not exceeding £100 | 1.409 | — | 1.409 |
| Over £100 but under £1,000 | 101 | 1 | 100 |
| £1,000 but under £10,000 | 538 | — | 538 |
| £10,000 but under £50,000 | 82 | — | 82 |
| £50,000 but under £100,000 | 13 | — | 13 |
| £100,000 but under £1,000,000 | 12 | — | 12 |
| £1,000,000 and over | 1 | — | 1 |
| Total number | 2.156 | 1 | 2.155 |
| | £ thous. | £ thous. | £ thous. |
| Total amount of Nominal Capital | 7.556 | — | 7.555 |

### Companies registered in Great Britain in 1969 and 1970

| | 1969 | | 1970 | |
|---|---|---|---|---|
| | Number | Nominal Capital £ thous. | Number | Nominal Capital £ thous. |
| January | 2,077 | 6,597 | 2,087 | 5,528 |
| February | 1,892 | 7,408 | 2,156 | 7,556 |
| March | 2,227 | 25,151 | | |
| April | 2,066 | 5,614 | | |
| May | 2,089 | 6,272 | | |
| June | 1,979 | 5,643 | | |
| July | 2,133 | 10,764 | | |
| August | 1,880 | 4,667 | | |
| September | 1,841 | 6,324 | | |
| October | 1,806 | 5,062 | | |
| November | 1,988 | 4,221 | | |
| December | 2,150 | 4,399 | | |
| Total | 24,128 | 92,122 | | |



*The first consignment of an order for some 750 tons of 'Tensiltarp' polythene sheeting, which will eventually line more than 500 Km of irrigation channel, recently left the Bridgwater, Somerset, factory of British Cellophane Ltd., on its way to Rumania. The sheeting, black polythene film in various widths, will be used in the Sadova-Corabia irrigation scheme for which the Taylor Woodrow Irrigation Group is responsible. The area of polythene involved in this contract is approximately 3¼ million square metres. The final delivery of polythene, completing the 750 tons, will be made in 1971, and the whole project is scheduled for completion before 1975.*

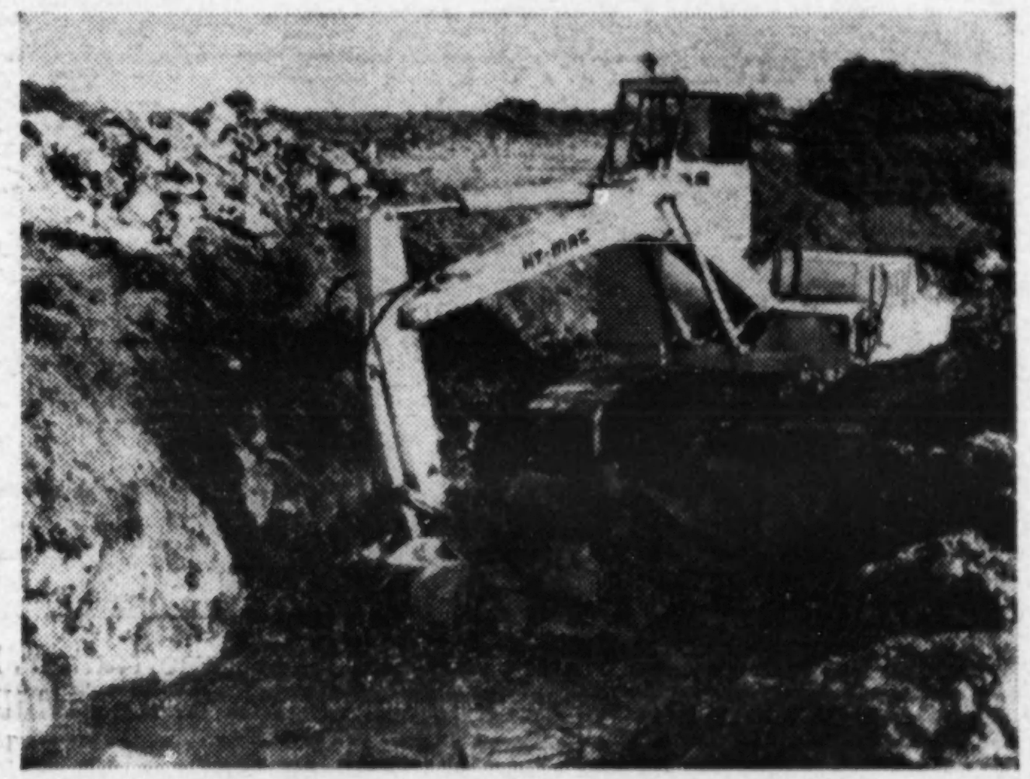
## New input-output tables

THE CENTRAL STATISTICAL OFFICE issued what are said to be the most comprehensive and detailed input-output tables ever produced for the United Kingdom on March 6. The results of this new CSO study will provide marketing managers and planners with a wealth of information about transactions by industries with each other and with their final markets.

In this analysis, the economy is divided into 70 separate industries. Figures are given to show the extent to which each industry is dependent for its sales, both directly and indirectly, on other industries, on personal and public consumption, on investment and on exports. Also, the extent to which each industry is dependent for its purchases on other United Kingdom industries and on imports.

Figures from these tables can be used to translate forecasts of demand in the national economy into projections of industrial output and, in turn, into projections of an individual firm's range of products. They also provide a basis for tracing the initial effects of price changes from one industry to another.

The tables include industry – industry and commodity – commodity transactions, an imports matrix and a full analysis of final demand by commodity group and by function. The figures in the study relate to 1963, the latest year for which detailed information about both input and output is available for manufacturing industry. The book, 'Input-Output Tables for the United Kingdom 1963' is published by HMSO as number 16 in the series 'Studies in Official Statistics,' price 55s. 0d.




*Eire's Peat Development Authority – Bord na Mona – has ordered a further 11 Hy-Mac excavators from Hy-Mac Ltd. This follows the successful application of five Hy-Mac low ground bearing pressure all-hydraulic excavators on peat production over the past 12 months.*

### INDEX INQUIRIES

*Inquiries about the detailed contents of the* JOURNAL *(dates on which particular articles etc., were published) should for convenience be made to the Board of Trade Library* (01-222 7877, *Ext.* 3038) *who compile the half-yearly index to the* JOURNAL.

### INDEX OF REGULAR STATISTICS

*When did the* Board of Trade Journal *last publish an article on the chemical industry? Which issue gives the latest figures on United Kingdom overseas trade, engineering production, hire purchase, wholesale prices, etc.?*

*An index of the date on which all regular statistical articles were last published will be found on the page following contents page.*

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## Exhibitions and Fairs

# *Variety of British toys at Canadian toy fair*

**A report from the British Trade Commission, Montreal**

### JAPAN WORLD EXPOSITION OPENS IN OSAKA

*Expo 70 opened in Osaka, Japan's second largest city, on March 15. A giant balloon patterned with six Union Jacks clearly identifies the British Government Pavilion, organized by the Central Office of Information on behalf of the Foreign and Commonwealth Office. Within the theme 'Progress, Promise and Variety' the pavilion presents the story of the British people, their heritage and their achievements. Expo 70 will run until September 13.*

*Mr. J. R. Cross (third from left), Senior British Trade Commissioner, Montreal, examines a low-friction die-cast model at the Canadian Toy Fair, Montreal. With Mr. Cross are (left to right): Mr. P. Mercer, Mettoy Co. Ltd., London; Mr. L. M. Kleinberg, Kleinberg Agencies, Montreal; Mr. R. Bradshaw, Qualitoys Ltd., Weston, Ontario; and Mr. G. Goude, British Toy Manufacturers' Association. Theme of the British toys displayed was one of quality and realism.*

THE PERIOD of February 22-27 was, for Montreal, Canadian Toy Week. Toy buyers from all important cities between Vancouver, British Columbia and St. John's, Newfoundland, came to Montreal to examine and buy their requirements for the 1970 Christmas season.

The main centre of activity was the Canadian Toy Fair, organized by the Canadian Toy Manufacturers' Association in the Concordia Hall of Place Bonaventure. One hundred and thirty-nine manufacturers of toys displayed their latest designs, and of this total, the 36 from Britain were in the composite display organized on a joint venture basis by the British Toy Manufacturers' Association and the Board of Trade, and built to the design of the Central Office of Information. The British stand, which was constructed entirely of 'bedlock' components, was undoubtedly by far the most attractive exhibit in the hall.

About half a mile from the Concordia Hall, the Canadian Toy Importers' Association held a rival exhibition at Le Martinique Motor Hotel. At this show were displayed a wide variety of imported toys from the Far East, the United States and Europe. At least eight of the exhibitors in this show featured the products of the British manufacturers which they represented, and most of these displays of British toys were of lines not being shown at the BTMA exhibit.

A few of the larger Canadian manufacturers did not exhibit in the main show, but held their own separate showings in neighbouring hotels and in showrooms in the Place Bonaventure Merchandising Mart. Indications are for extremely keen competition during 1970, particularly amongst the medium to lower quality products.

The theme of the British toys displayed was one of quality and realism. Die-cast models were a predominating feature of the joint British exhibit, and special attention had been given to the North American demand for low friction models with the ancillary track and booster units. The mechanically operated boosters being offered by the British manufacturers should find enthusiastic acceptance from parents who are footing the bill for the batteries required in boosters currently sold by North American competitors. New items in domestic toy appliances, realistic junior typewriters, an operating model Hovercraft, and face-making kits, were only a few of the inventive ideas of British manufacturers which were offered to the Canadian buyers. Ancilliary products included in the group showing were children's books and Christmas tree decorations.

Almost all the British exhibitors were well satisfied with the orders taken both from existing accounts and from the new accounts which were opened as a direct result of the exhibition. Bulk orders were in most cases expected later, but one or two large orders were written, including one for $50,000 for children's books.

Although the 1970 group showing by 36 British manufacturers contrasts most favourably with the five-firm group which inaugurated a British section at the Canadian Toy Fair only four years ago, there could well be support for even larger participation in the 1970s if additional space is available. It is this enthusiasm of the British toy industry for the Canadian market which is responsible for it being the third largest export market for British toys (value £1.9 million in the first 11 months of 1969).

### OPPORTUNITIES FOR EXPORTERS

*Details of inquiries for United Kingdom products by overseas buyers contracts open for tender and agents wishing to represent United Kingdom firms are published each week in the* Board of Trade Journal *under the heading Information for Exporters' Fuller information is also provided in the* Export Service Bulletin, *which is published by the Export Services Division of the Board of Trade.*

# WHEN YOU RESERVE A ROOM IN TOKYO, DON'T JUST SETTLE FOR THE ROOM

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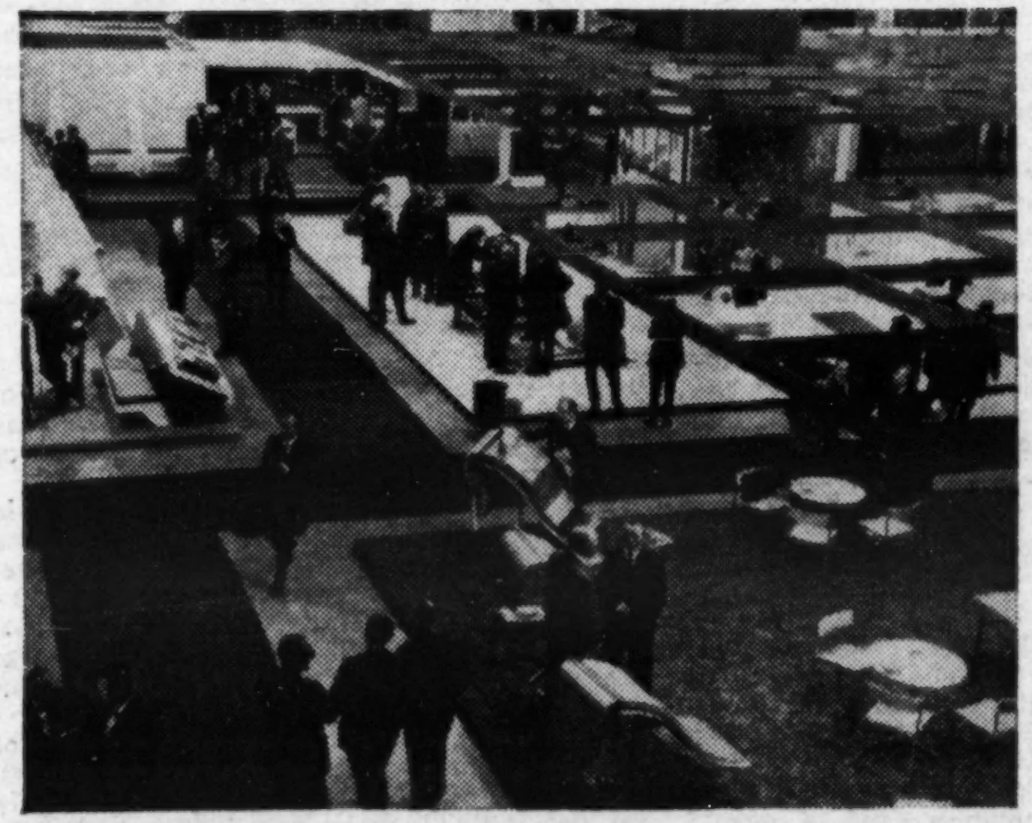
*The Metal Box Company Ltd., who always exhibit their extensive range of hardware at the Cologne International Household Goods and Hardware Fair, used the opportunity this year to launch the Topper – claimed to be an entirely new concept in can openers which, by means of a patented cutting mechanism that slices off the lid of a can beneath the rim, leaves lid and can completely free from any sharp edges and does not cut through the top of the lid into the contents. Afterwards the lid can be replaced as a protective cover. Picture shows Mrs. Gwyneth Dunwoody, Parliamentary Secretary, Board of Trade, witnessing a demonstration of one of the varieties of the new opener.*

*Mr. G. L. Scullard, British Commercial Consul, Los Angeles, discusses international relations with Alice Shimizu (centre), tour guide for the California Museum of Science and Industry, and Mrs. Scullard, at the recent International Poster Show at the museum. The exhibit represented 45 nations with 250 posters, including several from Britain.*



*From March 2 to 6, Earls Court London was the venue for Carpex '70 – the International Carpet, Linoleum and Floor Coverings Fair – and Imbex '70 – the International Men's and Boys' Wear Exhibition. Total attendance of Carpex came to over 16,000, slightly up on last year, and included overseas buyers from 47 countries. Picture on the left shows a cross-section of the exhibitors. Visitors to Imbex totalled 15,930, including 1,089 visitors from 64 countries. Picture on the right shows a party of Finnish retailers who were particularly interested in ICI Fibres' display of new super-luxury suits in Terylene-plus-T.*

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# Two wheelers at Amsterdam

**A report from the British Embassy, The Hague**

*The popular British display at the International Cycle and Motorcycle Exhibition, Amsterdam.*

THE 60th R.A.I. Two Wheeler Show which was opened by the Dutch Secretary of State for Culture, Recreation and Social Welfare, Mr. H. J. van der Poel, was held in the Amstelhal of the R.A.I. Building in Amsterdam from February 21 to March 1. The 91 exhibitors occupied an area of 8,300 square metres and among their displays were the products of 17 countries covering motorcycles and sidecars, bicycles, mopeds, powered three-wheelers for goods and personal use, invalid chairs and associated parts and accessories.

The British joint venture at the Show, sponsored by the Cycle and Motorcycle Association under the auspices of the Board of Trade, took up 300 square metres in the Glazen Zaal of the R.A.I. Building and comprised five firms. Their products, which included motorcycles, three-wheeler cars, electrical equipment and clothing were all displayed to good effect on attractive stands designed by the Central Office of Information. A central exhibit of five British motor cycles which had achieved specific records – in each case the actual machine which had achieved the record being on show – attracted much attention.

Though separated from the main exhibition by the Caravan Show in the Europahal, all of the joint venture participants expressed themselves satisfied with the interest shown. The week-ends were the busiest, the majority of the visitors being made up of motorcycling enthusiasts in the 20-30 age group, the main users of the approximately 3,500 machines sold annually.

Although the rapid rise in the popularity of the motorcar in The Netherlands adversely affected the sale of bicycles during the last decade, it is now apparent that, with an increasing use of the bicycle for recreation, the number of cyclists is going up year by year. (Sales rose from 500,000 in 1963 to 715,000 last year and it is confidently expected that this trend will continue). The independent British exhibitors in the bicycle section had an impressive display of all kinds of models, including children's 'Chopper' cycles with their car-type gear change levers and folding models for all ages. Lower light metal frames, aluminium wheel rims and brighter colours were noticeable features of all the machines at the Show. Raleigh showed a special high quality model – the most expensive bicycle in the whole exhibition – and, against some sceptical forecasts, were successful in selling it on the opening day.

H.M. Consul General in Amsterdam, accompanied by the Counsellor (Commercial) at the British Embassy in The Hague, visited all the British stands on February 25.

## EYES DOWN!

*Miss Lesley Renwick, daughter of the British Commercial Consul, San Francisco, models high fashion boots on the occasion of the British Footwear Manufacturers' Federation Mission to San Francisco in February. Also in the picture are Mr. Stewart F. Kennedy (centre), Church and Company, and Mr. J. S. Renwick, British Commercial Consul, San Francisco. Several sizeable orders were taken at the Mission's sample fair, together with numerous sample orders; all the members will be returning to sell into the market for British Week in San Francisco.*

# CETIA exhibition in Melbourne

**A report from the British High Commission, Melbourne**

*A display on the Elcometer Instruments stand at the CETIA exhibition, Melbourne, is discussed by, left to right: Mr. C. P. Wood-Mallock, Elcometer Instruments; Mr. R. W. B. Carter, Deputy High Commissioner, Melbourne; and Mr. D. H. C. Phillips, First Secretary (Commercial), Melbourne.*

THE 1970 Control, Electronics, Telecommunications, Instruments and Automation Exhibition (CETIA) was held at the Exhibition Buildings in Melbourne from February 23 to 27. This was the second CETIA organized under the technical direction and sponsorship of the Institute of Instrumentation and Control, Australia (IICA), the first having been held in Sydney in May 1968.

The guest speaker at the reception to mark the opening of CETIA 1970 was Mr. J. L. Knott, Director-General of Posts and Telegraphs, who welcomed the representatives of the companies exhibiting and spoke of the great strides made by the electronics and instrumentation industry in recent times.

Eighty-five companies participated in the exhibition, of whom approximately one-quarter were overseas manufacturers or their Australian subsidiary companies – the majority British. The Federal German Republic Ministry of Economics mounted an information display.

The participation of seven British-based manufacturers was arranged by the London Chamber of Commerce as a joint venture with the Board of Trade. Ten other British manufacturers exhibited independently through their Australian subsidiary companies. In addition, British products appeared on the stands of several Australian importers. An information stand was staffed by the London Chamber of Commerce.

The number of companies participating in the exhibition was slightly lower than in 1968 (91) but the area rented by exhibitors was one-third greater. The number of visitors – 8,900 – while registering an increase of 700 over 1968, fell short of expectations. However, it was generally agreed that this was more than compensated for by the quality of the inquiries.

Exhibitors reported a large number of serious inquiries and, with few exceptions, have indicated their interest in participating in the 1971 CETIA to be held in Sydney. While no exhibitors reported actual orders placed during the exhibition, one firm which participated in the Board of Trade/London Chamber of Commerce joint venture hopes for orders worth $A50,000 in the next 12 months, doubling in the following year, while another participant expects an order worth $A30,000 in the near future, and one other should double last year's turnover in Australia within the next few weeks.

Throughout the middle three days of the exhibition three symposia were held in an adjacent hall in the Exhibition Buildings, Melbourne, the subjects being 'Electronics and Instrumentation', 'Fluid Power 1970' and 'Application of Non-destructive Testing to the Maintenance of Plant and Equipment'. The series of lectures, which drew an attendance of 890, were inaugurated by The Hon. J. F. Rossiter, Minister of Labour and Industry and Assistant Minister of Education, Victoria.

# *UK electronic packaging equipment scores success in California*

**by Norman R. Sutherland, British Consulate General, Commercial Department, Los Angeles**

*Mr. Norman Sales, HM Acting Consul-General (second from right), listens attentively as Mr. T. Gilbert, managing director, Elite Engineering Ltd., describes the enthusiastic response to his firm's products at the National Electronic Packaging and Production Conference and Exhibition, Anaheim, California. Also in the picture are, left to right: Mrs. T. Gilbert, Mr. Gordon Saville of Gordon Saville Exhibitions Ltd., and Mr. Chuck Cohrs, general manager, Nepcon.*

*Mr. Robert Spedding, managing director of Singer-Cobble Ltd., Blackburn, was one of the exhibitors at the Leipzig Fair to be introduced to the First Deputy Prime Minister of the Soviet Union, Mr. L. Smirnov, when he visited the fair. Singer-Cobble, whose business with Eastern Europe has been increasing rapidly over the last two years, were exhibiting at Leipzig this year for the first time. Their representatives have reported strong interest, not only from technicians and factory directors, but also from high level Government officials. Picture shows Mr. Spedding (right) welcoming Mr. Smirnov (left) to the Singer-Cobble stand.*

ELEVEN British electronic packaging manufacturers exhibited for the first time at the National Electronic Packaging and Production Conference (Nepcon 70 West) at the Anaheim Convention Center, Anaheim California, from February 10-12.

Jointly sponsored by the Board of Trade and the British Metal Finishing Association, the British contingent at Nepcon 70 West attracted considerable interest from the visitors to the show, resulting in approximately 1,900 serious inquiries, ron which it is expected that a sizeable number of orders will result.

Nepcon is held three times per year in the United States, and annually at Brighton, England. The American shows are held in the three main geographical concentrations of the United States electronic industry and are appropriately dubbed, Nepcon East, West and Central, respectively. This year's Nepcon West was the largest exhibition and conference ever held by the show organizers and sponsors, Electronic Packaging and Productions Magazine of Chicago, Illinois, with 390 exhibitors occupying 610 booths and an attendance in excess of 22,000.

The exhibition occupied approximately 120,000 square feet of the Anaheim Convention Center, which is strategically located near Los Angeles and in the heart of the electronics and aerospace industrial belt of the South West United States.

The British participants were unanimous in their praise of the design of their booths and the work put in by the COI. Mr. R. Martin, managing director of Industrial Control Systems Ltd., who displayed their electronic components and semiconductor test equipment, exclaimed, 'it was ten times easier to stage our exhibit at Nepcon West than at previous shows, due to the excellence of the preparatory work put in by the COI and the organizers. All we had to do was plug in our equipment.' Another typical reaction was that of Mr. and Mrs. T. Gilbert of Elite Engineering Ltd., makers of special equipment for printed circuit manufacturers, who expressed surprise that out of the 200 British exhibitors at InterNepcon in Brighton last October, only eleven British firms exhibited at Nepcon West. 'This is a very good show,' said Mr. Gilbert, 'we have received between 400 and 500 inquiries and offers from four potential representatives – and we are only a small firm.'

N. Saunders, Metal Products Ltd., were exhibitors for the first time in the United States. Their optical drills aroused considerable interest from the visitors.

Procirc Company Ltd., introduced their automatic developer for printed circuit manufacture. Mr. M. J. Goodall, company director, claimed that he could sell two years' production in the United States with only six months' selling effort. APV Mitchell's continuous spray etch plant was shown for the first time in the United States. Apollo Electronics Ltd., new portable co-ordinatograph, called the 'scribemaster,' aroused such interest that the firm plan to exhibit at Nepcon 70 East in New York in June. Vero Electronics Limited received 25 per cent more inquiries about their printed wiring boards and accessories than they had expected. Jermyn Industries' heat transfer ceramic washers brought a 'very good response,' and S. G. Owen Ltd.'s gold plated integrated circuit lead frames kept them busy answering inquiries, as were Unimatic Engineers Ltd., who showed their 'Drill-Plan' grid drilling machine.

**Products in demand**

Electronic manufacturers in the Western United States purchase approximately $17,800,000 worth of production components and packaging per year. Of this sum, over 50 per cent is purchased from outside the area. Ranked by dollar volume of purchases, the following tools and machinery are in great demand: soldering irons, tools, electronic packaging components and systems, machinery, vibration mounts, precision electronic welders, cooling devices, environmental chambers, ultrasonic cleaning equipment, industrial circuit breakers, clean room equipment, heating equipment, vacuum equipment and ventilation equipment.

Concurrent with the exhibition was a series of professional advancement courses, technical sessions and presentation of papers.

Nepcon '70 Central is the next National Electronic Packaging and Production Show scheduled for April 7-9 at the Sherman House Hotel in Chicago, to be followed by Nepcon '70 East, scheduled for June 16-18, at the New York Coliseum. The Show organizers plan to accommodate 190 exhibitors at Chicago and over 600 exhibits, utilizing two floors of the Coliseum, for the first time.

## IMPORTANCE OF AIR MAIL

*All correspondence overseas should be done by air rather than by sea in the interests of export efficiency, and businessmen are reminded that due care should be taken that mail is fully stamped. Should this precaution be overlooked the correspondence may be delayed and opportunities lost.*

*Outside busy periods, such as Christmas, the Post Office often makes up postage on insufficiently stamped airmail letters (though this cannot be guaranteed) provided the senders' name and address appears on the envelope. An insufficiently stamped airmail letter not having this information may be sent surface mail or the addressee may be called upon to pay double the missing postage.*

*Full details of overseas postage rates (and much other useful information) are given in the Post Office Guide, obtainable at all post offices, price 2s. 6d. Another useful publication is the monthly Air Mail Leaflet which gives postage rates, times of transmissions and the latest posting times which vary with airline schedules. The Air Mail Leaflet is available free from all post offices and a standing order can be placed for its regular delivery.*

# Major international exhibitions in Moscow during 1971

IT HAS BEEN KNOWN for some time that the USSR Chamber of Commerce intends to organize two major international exhibitions in Moscow during 1971. Definite dates have not yet been announced, but the first exhibition, dealing with catering equipment, is expected to be held during May-June 1971 and the second, dealing with building materials, at some time in the autumn.

The official Soviet preliminary lists of the contents of these two exhibitions are reproduced below. More detailed information will be received in due course. The Board of Trade is not at this stage asking for definite applications for space in possible British pavilions at these exhibitions, but any firms which are interested, and would like to receive further information, should register their interest with Mr. J. R. Schaffer, Room 102, Fairs and Promotions Branch, Board of Trade, 26 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 7246). These firms will be supplied with further detailed information as soon as it comes to hand.

**International exhibition: 'Modern equipment for trade and public catering establishments'**

It is planned to demonstrate at the exhibition:

Modern equipment for food and industrial goods shops:
- machines for slicing, parcelling, weighing and packing of gastronomy, meat and other goods;
- equipment for making and selling liquid foods (cocktails, juices, etc.);

Lifting and transport equipment:
- mechanized shelves;
- mechanized lines for preparation of fruits and vegetables for selling;
- equipment for making modern types of packages;
- arrangements for selling foods in the street;

Modern equipment and automatic installations for canteens, restaurants and coffee-houses:
- machines and mechanisms for potato and vegetable processing;
- apparatus for thermal treatment of food products with high frequency current and infra-red heating;
- mechanized washing installations;
- means of mechanization of serving out food;
- complete equipment and automatic machines for preparing meals to be served out on board the planes;
- modern weighing equipment and computing machines, refrigerating equipment;
- slot machines;
- machines for cleaning premises;

Specialized transport facilities for goods:
- modern office equipment for trade and public catering establishments;
- modern materials for finishing trade equipment, shops, canteens, restaurants and coffee-houses.

**International exhibition: 'Building materials and equipment for their production'**

At the exhibition it is planned to demonstrate technological processes of production of building materials and articles, equipment and fittings, means of mechanization and automation, and samples according to the following sections:
- adhesives; cement, lime, gypsum, etc.;
- wall, structural and fencing materials; panels, blocks, small-piece articles, etc.;
- roofing and hydroinsulating materials; asbestos-cement sheets, rolled roofing material, tiles, etc.;
- finishing materials; ceramics, construction glass, natural stone, glass plastics, foliated paper plastics, wood-fibre and wood-shavings tiles, plywood, wallpaper, etc.;
- heat and sound insulating and acoustic materials; articles of slag wool and glass wool on the basis of polymeric raw material, vermiculite, perlite, etc.;
- admixtures for production of heavy and light concretes; chips, gravel, sand, porous clay filler, aggloporite, etc.;
- sanitary fittings; heating boilers, bath, wash water tanks, sinks, lavatory pans, taps, mixers, window and door fittings, etc.;
- prefabricated and monolithic reinforced concrete, sleepers, supports for electro-transmission lines, etc.;
- pipes; reinforced concrete, asbestos-cement, ceramic, glass, polymeric, polymer-reinforced concrete, etc.;
- structures for window and door openings; doors and window sashes – wooden, combined with metal, polymers, glass; glass doors, etc.;
- paints and varnishes for construction purposes.

# Opportunities for UK firms at Moscow 'Intergas-70'

THE INCREASING exploitation of the vast natural wealth of Siberia, including huge oil and natural gas deposits, is one of the most promising of the economic developments of the 1970s. Natural gas reserves there have been estimated at 15 million million cubic metres, and already in 1970 output is planned to reach 197,400 million cubic metres. This is generating a tremendous demand for every kind of equipment for the exploration, extraction, refining, transportation, storage, distribution and industrial and domestic application of natural gas. By far the greater part of this demand is likely to be satisfied from Soviet domestic production, or from that of the East European countries. In addition, some £250 million worth of pipeline and equipment will be supplied, under contracts recently signed, by the major Western customers for the gas – Italy and the Federal Republic of Germany. But in many spheres there are needs which British industry would be well equipped to meet.

'Intergas-70', an exhibition to be held in Moscow from June 8-23 in connection with the International Gas Congress, will provide a unique opportunity for British industry to probe these needs, and to show what Britain can offer. Purchasing decisions by the Soviet authorities over the decisive next few years are likely to be directly influenced by what they see at this exhibition.

**Careful thought**

Any British company with experience in any of the above, or related, fields will therefore wish to give careful consideration to the possibility of taking part in this exhibition. Further details, including the list of the kinds of equipment which the Soviet authorities hope to see displayed, can be obtained from Mr. J. R. Schaffer, of the Fairs and Promotions Branch of the Board of Trade, Tower Block, Hillgate House, 35 Old Bailey, London, E.C.4. Applications must be received in Moscow by April 1.

*Mr. Arthur Bryan, chairman of Wedgwood Ltd. (left), chatting with Mr. Mick Spire, British Trade Commissioner, during the Spring Pattern Preview of the Canadian company held in Toronto at the end of last month. With the acquisition of Meakin and Midwinter, the Wedgwood Group reports that it has now become the world's largest producer of domestic earthenware.*

# Overseas Trade and Exports

## TRADE AND FINANCIAL ARRANGEMENTS

### *United Kingdom aid to developing countries*

**Nigeria**

BRITAIN IS CONTRIBUTING about £50,000, over three years, towards a fisheries research scheme for Lake Kainji in Nigeria. A joint team of two research fellows and four post-graduate students, drawn equally from the universities of Southampton and Ife, in Nigeria, will work at Kainji. Their purpose will be to find out if the lake can support a fish population which could provide an important source of food.

The team will do research on the chemistry and circulation of the lake water; the feeding habits of commercially important fish, their life circles, breeding patterns and growth. It will also investigate the distribution of zoo-plankton, which provides the fish with food.

The four post-graduate students will spend about two years on field work, collecting material, which they then analyse and interpret at Southampton. The team's work is designed to complement the research of an FAO team which is already working at Kainji on the development of natural resources, including fishery stock assessment studies.

Inquiries relating to this notice should be addressed to the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 3064), quoting reference number CRE 13507/G.

**Sudan**

BRITAIN HAS offered to provide the Sudan Government with an interest-free loan of up to £980,000 towards the financing of the first phase of an irrigation scheme in which 14 pumping stations will be erected in the River Nile in the Northern Province of Sudan.

The project will play an important part in Sudan's agricultural development. The main crops to be grown under it will be wheat and horse beans, which are import substitutes, and sorghum and haricot beans, which will contribute to exports. The schemes have been recommended for development by the British consultants, Sir M. MacDonald & Partners and Hunting Technical Services Ltd.

### *United Kingdom double taxation agreement with Malaysia—matching of incentive reliefs*

THE BOARD of Inland Revenue announce that the United Kingdom has undertaken, under the terms of its 1967 Double Taxation Agreement with Malaysia, to give credit against United Kingdom tax for certain Malaysian tax which would have been payable but for special reliefs allowed to pioneer industries under Malaysian legislation.

It has now been agreed with the Malaysian Revenue authorities that the United Kingdom will give credit in accordance with the terms of this Agreement for tax given up by Malaysia under any of the following provisions of the Malaysian Investment Incentives Act 1968.

Section 21 (exemption from income tax).
Section 22 (certain dividends exempted from income tax).
Section 26 (investment tax credit).

### *Double taxation relief*

THE BOARD of Inland Revenue announce that two orders entitled The Transitional Relief for Interest and Royalties paid to Non-Residents (Extension of Period) Order, 1970 (which comes into operation on April 1, 1970) and The Non-Residents' Transitional Relief from Income Tax on Dividends (Extension of Period) Order 1970 (which comes into operation on April 6, 1970) have been published as Statutory Instruments 1970 No. 325 and No. 326.

The orders extend, in each case by a further period of one year, the operations of Sections 32 and 31 (in that order) of the Finance Act, 1966.

### *Currency change in Muscat and Oman*

THE CURRENCY of the Sultanate of Muscat and Oman is shortly to be changed from the Gulf Rupee to the Saidi Riyal. The Riyal is to be equivalent to £1 sterling and divided into 1,000 baisas. The period of the changeover is to be limited to two weeks, after which the Gulf Rupee will be valueless. The actual date of the changeover is not to be announced until one week before its start. However the change is likely to be made within the next three months.

Further information on this change will be published as soon as it becomes available.

### *Hints to businessmen booklets*

REVISED EDITIONS of the booklets on Pakistan, New Zealand and Malaysia, Singapore and Brunei, have been published in the 'Hints to Business Men' series.

British businessmen who intend visiting these countries on export business can obtain copies of the booklets on application to Export Services Division, Board of Trade, Room C07, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 7146), or to any Regional Office of the Board of Trade, or on personal application to the Export Information Centre, Board of Trade, 50 Ludgate Hill, London, E.C.4.

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# Opportunities for exporters—calls for tender

*Brief details are given below of some Calls for Tender reported in recent issues of the* **Export Service Bulletin.** *Copies of the Bulletins, which contained the original notices, and photocopies of drawings, specifications (where available) may be purchased by British firms.*

*Orders for Bulletins (2s. each) and specifications, etc. (the price of these varies – see individual notices) must be accompanied by a remittance for the correct amount in the form of a cheque or postal order (not postage stamps) made payable to the Principal Accountant, Board of Trade and should state the country, commodity and reference number. However, firms which have opened Deposit Accounts with Export Services Division, Board of Trade, may order Bulletins or photocopies by telephone, telex or letter unaccompanied by a remittance.*

**Note:** *An asterisk in the text indicates that documents may be borrowed.*

*The date given in the announcement is the last date for the receipt of bids.*

*All inquiries should be addressed to the Editor,* **Export Service Bulletin,** *Board of Trade, Room H19, Hillgate House, 35 Old Bailey, London, E.C.4 (Telephone:* 01-248 5757, *Extns.* 404, 7003 *and* 406 *(Deposit Accounts), Telex:* 886143, *Answer Back BOTHILLGATE LDN. Telegram: EXSERBRA).*

**ALGERIA**

**BULLETIN 48/70**

ALGERIAN RADIO AND TELEVISION AUTHORITY:
Television Production and Transmission Equipment. July 31. E.S.B. 53769/70/J.

**ANGOLA**

**Bulletin 47/70**

INSTITUTO DAS INDUSTRIAS DE PESCA DE ANGOLA:
Metal Silos. April 10. E.S.B. 53619/70/J.

**Bulletin 48/70**

*1s. (Press Notice in Portuguese.) Refrigeration Equipment. April 30. E.S.B. 53725/70/J.

**ARGENTINA**

**Bulletin 46/70**

EMPRESA PROVINCIAL DE ENERGIA DE CORDOBA:
*Generators. (Further Information.) E.S.B. 51635/70/J.
SERVICIOS ELECTRICOS DEL GRAN BUENOS AIRES:
*3s. (In Spanish.) Insulating Switches. April 3. E.S.B. 53123/70/J.
*22s. (In Spanish.) Electrodes. (Further Information.) E.S.B. 53124/70/J.
*49s. (In Spanish.) Switchboard Panels. (Further Information.) E.S.B. 52612/70/J.
*29s. (In Spanish.) Knife Switches. (Further Information.) E.S.B. 53125/70/J.

**Bulletin 47/70**

*40s. (In Spanish.) Transformers. April 6. E.S.B. 53589/70/J.
*39s. (In Spanish.) Cable. April 6. E.S.B. 53590/70/J.

**AUSTRALIA**

**Bulletin 45/70**

MATER PUBLIC HOSPITAL:
*Mechanical Services at a Hospital. March 31. E.S.B. 53483/70/J.
*Air Conditioning Systems. March 31. E.S.B. 53477/70/J.
OVERSEAS TELECOMMUNICATIONS COMMISSION (AUSTRALIA):
*Telephone Exchange Equipment. July 27. E.S.B. 53401/70/J.

**Bulletin 46/70**

MATER PUBLIC HOSPITAL:
*Electrical Services for Hospital. March 31. E.S.B. 53601/70/J.
*Lifts. March 31. E.S.B. 53476/70/J.
*73s. Cold Room Installation. March 31. E.S.B. 53482/70/J.
PROSERPINE SHIRE COUNCIL:
*117s. Sewage Treatment Plant. April 8. E.S.B. 53603/70/J.
ELECTRICITY COMMISSION OF NEW SOUTH WALES:
Transformers. March 31. E.S.B. 53578/70/J.

**Bulletin 47/70**

PROSERPINE SHIRE COUNCIL:
*84s. Pumps and Control Equipment. April 8. E.S.B. 53602/70/J.
QUEENSLAND ALUMINA LTD.:
Caustic Soda. Closing date not known. (Advance Information.) E.S.B. 53641/70/J.
STATE ELECTRICITY COMMISSION OF VICTORIA:
*30s. Weighbridge. (Further Information.) E.S.B. 53135/70/J.
DEPUTY ASSISTANT DIRECTOR-GENERAL (SUPPLY):
*27s. Radio Telephone Equipment. April 16. E.S.B. 53605/70/J.

**Bulletin 49/70**

IRRIGATION AND WATER SUPPLY COMMISSION:
*Bulkhead Gate; Hoists; Gantry and Inspection Platform for Beardmore Dam. May 18. E.S.B. 53770/70/J.
DISTRICT ENGINEER, MAIN ROADS DEPARTMENT:
Construction of Road (Pre-qualification). March 30. E.S.B. 53780/70/J.

**BELGIUM**

**Bulletin 47/70**

SUPREME HEADQUARTERS, ALLIED POWERS, EUROPE:
*Communication Receivers. April 9. E.S.B. 53596/70/J.
LES FORCES ARMEES:
Salad Oil. April 3. E.S.B. 53676/70/J.

**BURMA**

**Bulletin 45/70**

CHEMICAL INDUSTRIES MANAGEMENT COMMITTEE:
*3s. Steel Plates. March 30. E.S.B. 53453/70/J.

**Bulletin 46/70**

PEOPLE'S OIL INDUSTRY:
*3s. Printing, Tracing and Drawing Paper; Developer. March 31. E.S.B. 53633/70/J.
PUBLIC WORKS CORPORATION:
*4s. Steel Lift Rope. April 4. E.S.B. 53515/70/J.
PEOPLE'S ELECTRO MECHANICAL SERVICES:
*3s. Welding Rods, Flux. March 31. E.S.B. 53496/70/J.
MYANMA EXPORT IMPORT CORPORATION:
*2s. Pipe Cutting and Tapping Equipment. April 30. E.S.B. 53492/70/J.
*3s. Plumbing Tools. March 31. E.S.B. 53495/70/J.
*4s. Air Compressors. April 2. E.S.B. 53502/70/J.
*4s. Chemical Dosing Pumps. March 30. E.S.B. 53503/70/J.
*3s. Dumper Trucks. April 10. E.S.B. 53506/70/J.
*11s. Fire Bricks, Refractory Mortars and Accessories. March 30. E.S.B. 53504/70/J.
PEOPLE'S BAWDWIN INDUSTRY:
*3s. Bulldozer. April 10. E.S.B. 53507/70/J.
*4s. Measuring Tools and Instruments. April 10. E.S.B. 53508/70/J.
*4s. Generators. April 10. E.S.B. 53510/70/J.
*4s. Taps; Wrenches. April 10. E.S.B. 53511/70/J.
*2s. Chemicals. March 30. E.S.B. 53414/70/J.
*3s. Telephone Exchange Switchboard. April 10. E.S.B. 53509/70/J.
PLASTIC PRODUCTS INDUSTRIES:
*2s. Screws. March 30. E.S.B. 53516/70/J.
PORT OF RANGOON MANAGEMENT BOARD:
*3s. Pneumatic Tools, Twist Drills and Bits. March 31. E.S.B. 53494/70/J.

**Bulletin 47/70**

UNION OF BURMA RAILWAY BOARD:
*3s. Steel Tubes. April 7. E.S.B. 53629/70/J.
PUBLIC WORKS CORPORATION:
*3s. Drill Steels. April 6. E.S.B. 53634/70/J.

**Bulletin 49/70**

*3s. Winch Tractor April 30. E.S.B. 53811/70/J.

**CANADA**

**Bulletin 48/70**

QUEBEC PROVINCIAL GOVERNMENT:
Data Processing and Retrieval Equipment. Closing date not known. E.S.B. 53693/70/J.

**CEYLON**

**Bulletin 46/70**

CEYLON STATE HARDWARE CORPORATION:
*5s. Stainless Steel. April 3. E.S.B. 53522/70/J.
CEYLON CEMENT CORPORATION:
*Air Compressors, Crawler Drills. (Further Information.) E.S.B. 53308/70/J.

**Bulletin 47/70**

NATIONAL MILK BOARD:
*Aluminium Foil. April 2. E.S.B. 53529/70/J.
DEPARTMENT OF HEALTH:
*8s. Sterilizers, Dental Equipment. April 17. E.S.B. 53533/70/J.
X-ray Apparatus. April 17. E.S.B. 53525/70/J.
*8s. Hypodermic Syringes and Needles. April 3. E.S.B. 53524/70/J.
Crepe Bandages. April 3. E.S.B. 53526/70/J.
TENDER BOARD, GOVERNMENT SUPPLIES:
Pressure Lamps. April 7. E.S.B. 53527/70/J.
Metal Polish. April 7. E.S.B. 53606/70/J.

**Bulletin 48/70**

Ropes. May 26. E.S.B. 53722/70/J.
EASTERN PAPER MILLS CORPORATION:
*9s. Starch. May 15. E.S.B. 53721/70/J.
CHAIRMAN, TENDER BOARD:
D.D.T. Technical. April 24. E.S.B. 53723/70/J.
Printing Machinery and Equipment, Grinders, Bookbinding Machinery. April 11. E.S.B. 53724/70/J.

**COLOMBIA**

**Bulletin 46/70**

INSTITUTO COLOMBIANO DE LA REFORMA AGRARIA:
Pumping Units. May 4. E.S.B. 53519/70/J.
CAJA DE CREDITO AGRARIO:
*2s. (In Spanish.) Vegetable Seeds. March 30. E.S.B. 53647/70/J.
*2s. (In Spanish.) Water Filter. March 30. E.S.B. 53638/70/J.

**Bulletin 49/70**

EMPRESA NACIONAL DE TELECOMUNICACIONES:
Telephone Exchange Equipment. June 4. E.S.B. 53801/70/J.
MINISTERIO DE OBRAS PUBLICAS:
*23s. Soil Research Laboratory Equipment. March 30. E.S.B. 53791/70/J.

**COSTA RICA**

**Bulletin 49/70**

INSTITUTO COSTARRICENCE DE ELECTRICIDAD:
*(Press Notice in Spanish.) Steel Tubing and Accessories. May 26. E.S.B. 53784/70/J.
CAJA COSTARRICENCE DE SEGURO SOCIAL:
*1s. (Press Notice in Spanish.) Medical Supplies. March 31. E.S.B. 53783/70/J.
*1s. (Press Notice in Spanish.) Pharmaceuticals. March 30. E.S.B. 53782/70/J.

**CYPRUS**

**Bulletin 47/70**

PRESIDENT OF THE TENDER BOARD:
*3s. Teleprinter Rolls, Towers and Masts. April 4. E.S.B. 53623/70/J.

**Bulletin 48/70**

CYPRUS TELECOMMUNICATIONS AUTHORITY:
Telex Units. April 3. E.S.B. 53767/70/J.
Insulators. April 3. E.S.B. 53763/70/J.
Iron Frames, Cabinet and Pillar Accessories. April 3. E.S.B. 53764/70/J.
Valves. April 3. E.S.B. 53765/70/J.
Franking Machines. April 3. E.S.B. 53766/70/J.
Overhead, Underground and Internal Iron Materials. April 3. E.S.B. 53760/70/J.
Cables, Wires and Jointing Materials. April 3. E.S.B 53762/70/J.
Overhead Wooden Materials. April 3. E.S.B. 53761/70/J.

**EL SALVADOR**

**Bulletin 45/70**

COMISION EJECUTIVA PORTUARIA AUTONOMA:
*(List of requirements in Spanish.) Port Handling Equipment. (Advance Information.) E.S.B. 53417/70/J.

**GERMANY**

**Bulletin 47/70**

BUNDESAMT FUER WEHRTECHNIK UND BESCHAFFUNG:
Paint and Painting Material. August 15. (Advance Information.) E.S.B. 53448/70/J.

**Government Publications**

required by customers in Scotland may be obtained quickly from
Her Majesty's Stationery Office, 13a Castle Street, Edinburgh, 2

GHANA
Bulletin 48/70
WATER AND SEWAGE CORPORATION:
Construction of Sewerage System. (Further Information.) E.S.B. 53274/70/J.

GREECE
Bulletin 47/70
MINISTRY OF TRADE:
*Bread and Biscuit Making Machinery. April 8. (Further Information.) E.S.B. 38716/69/J.
*4s. Surgical Gloves. April 15. E.S.B. 53665/70/J.
Bulletin 49/70
*6s. Surgical Sutures. April 20. E.S.B. 53714/70/J.
*6s. Cardiological Apparatus. April 17. E.S.B. 53718/70/J.
*8s. Laboratory Equipment. (Further Information.) E.S.B. 31585/69/J.
*5s. Hypodermic Syringes. April 15. E.S.B. 53716/70/J.
*4s. X-ray Material. April 13. E.S.B. 53717/70/J.
*4s. Injections and Hypodermic Needles and Holders. April 17. E.S.B. 53715/70/J.

GUATEMALA
Bulletin 46/70
INSTITUTO NACIONAL DE ELECTRIFICATION:
Metering Equipment. March 30. E.S.B. 53447/70/J.

INDIA
Bulletin 45/70
BHABHA ATOMIC RESEARCH CENTRE:
I-Beam. April 10. E.S.B. 53353/70/J.
Bulletin 46/70
DIRECTOR-GENERAL POSTS AND TELEGRAPHS:
*8s. Power Plants. (Further Information.) E.S.B. 53296/70/J.
*65s. Coaxial Line Equipment. (Further Information.) E.S.B. 53299/70/J.
INDIAN SUPPLY MISSION:
Presses. June 1. E.S.B. 53422/70/J.
Head Press. May 11. E.S.B. 53421/70/J.
Bulletin 47/70
BOKARO STEEL LTD.:
*51s. Railway Weighbridge. April 6. E.S.B. 53593/70/J.
DIRECTOR-GENERAL OF SUPPLIES:
*42s. Steel Wire. April 16. E.S.B. 53612/70/J.
MINISTRY OF RAILWAYS:
Axles. April 14. E.S.B. 53586/70/J.
HINDUSTAN SHIPYARD LTD.
Rudder Parts. April 15. E.S.B. 53582/70/J.
Rudder Stocks. April 15. E.S.B. 53583/70/J.
Rudder Stock Carrier Bearings. April 15. E.S.B. 53584/70/J.
Rudder Stock Guide Bearings. April 15. E.S.B. 53585/70/J.
Slag Ladle Carriages. April 3. E.S.B. 53592/70/J.
DIRECTORATE-GENERAL OF SUPPLIES AND DISPOSALS:
*39s. Gas Cylinders (Empty). April 17. E.S.B. 53611/70/J.
DIRECTOR-GENERAL OF POSTS AND TELEGRAPHS:
*19s. Measuring and Testing Equipment. (Further Information.) E.S.B. 53297/70/J.
RAILWAY BOARD:
*20s. Railway Wheel Sets; Tyred Wheels and Axles. (Further Information.) E.S.B. 53129/70/J.

IRAQ
Bulletin 49/70
IRAQ CEMENT CO.:
*3s. Salt Scraping Machine. May 14. E.S.B. 53771/70/J.
*3s. Shovel Loader. May 14. E.S.B. 53772/70/J.
*4s. Generating Set and Accessories. May 14. E.S.B. 53773/70/J.
*3s. Pumps. May 14. E.S.B. 53774/70/J.
*4s. Bagging Machinery. May 14. E.S.B. 53775/70/J.
MINISTRY OF DEFENCE:
*2s. Uniforms. April 19. E.S.B. 53800/70/J.
CENTRAL FOREIGN PURCHASING BOARD:
*10s. X-ray Film Processing Unit. April 12. E.S.B. 53799/70/J.
MINISTRY OF OILS AND MINERALS:
Generating Set. Closing date postponed to March 31. (Further Information.) E.S.B. 52512/70/J.

IRISH REPUBLIC
Bulletin 45/70
CITY OF CORK VOCATIONAL EDUCATION COMMITTEE:
Construction of Technical College. April 3. E.S.B. 53419/70/J.

ITALY
Bulletin 47/70
NATO:
*9s. FFT Processor. April 30. E.S.B. 53666/70/J.

JORDAN
Bulletin 45/70
JORDAN PETROLEUM REFINERY CO.:
*7s. Tractive Units and Semi-Trailers. April 4. E.S.B. 53339/70/J.
Bulletin 47/70
*3s. Valves. April 11. E.S.B. 53697/70/J.
*2s. Fractional Cracking Unit Spare Parts. April 11. E.S.B. 53698/70/J.
*1s. Cable. April 11. E.S.B. 53699/70/J.
*1s. Gauges. April 11. E.S.B. 53700/70/J.
MINISTRY OF HEALTH:
*2s. Surgical Instruments. March 30. E.S.B. 53706/70/J.
JORDAN PETROLEUM REFINERY CO.:
*1s. Hydrochloric Acid. March 31. E.S.B. 53802/70/J.
Bulletin 49/70
*1s. Alumina Silicate. March 31. E.S.B. 53804/70/J.
*1s. Trisodium Phosphate. March 31. E.S.B. 53803/70/J.

KOREA
Bulletin 46/70
OFFICE OF SUPPLY:
*8s. Diesel Engine, Hydraulic Torque Converter. March 31. E.S.B. 53669/70/J.
Bulletin 48/70
Diesel-Electric Locomotives. June 2. E.S.B. 53702/70/J.

KUWAIT
Bulletin 45/70
ARABIAN OIL COMPANY LTD.:
*5s. Oil Well Cement. April 15. E.S.B. 53344/70/J.
*4s. Casing Pipes. April 15. E.S.B. 53346/70/J. 53347/70/J.
*4s. Casing Pipe. April 22. E.S.B. 53348/70/J.
*4s. Tubing Pipes. April 22. E.S.B. 53349/70/J.
*11s. Hose for Crude Oil. April 22. E.S.B. 53350/70/J.

LEBANON
Bulletin 47/70
LA COMPAGNIE DE GESTION ET D'EXPLOITATIONS:
Canvas Covers. March 30. E.S.B. 53696/70/J.

MALAYSIA
Bulletin 45/70
STATE DRAINAGE AND IRRIGATION DEPARTMENT:
*1s. Diesel Pumps. Closing date postponed to April 25. (Further Information.) E.S.B. 52761/70/J.
Bulletin 46/70
CANTRANS SERVICES LTD.:
*9s. Transformers. (Further Information.) E.S.B. 53326/70/J.
PORT SWETTENHAM AUTHORITY:
Transit Sheds. (Advance Information.) E.S.B. 53637/70/J.
SARAWAK ELECTRICITY SUPPLY CORPORATION:
*2s. Generators, Control Boards. March 31. E.S.B. 53599/70/J.
Bulletin 47/70
PUBLIC WORKS DEPARTMENT, SARAWAK:
*12s. Workshop Tools and Equipment. April 6. E.S.B. 53598/70/J.
CANTRANS SERVICES LTD.:
Plywood Equipment and Machinery. March 31. E.S.B. 53704/70/J.

MALTA
Bulletin 49/70
MALTA ELECTRICITY BOARD:
*9s. Sodium Lamps. March 31. E.S.B. 53805/70/J.

MEXICO
Bulletin 46/70
COMISION FEDERAL DE ELECTRICIDAD:
87s. (In English or Spanish.) Compressed Air Receivers. April 5. E.S.B. 53625/70/J.
*78s. Fuel Oil Heaters. April 13. E.S.B. 53621/70/J.
*Turbines. April 20. E.S.B. 53624/69/J.

MOROCCO
Bulletin 46/70
M. LE MINISTRE DES TRAVAUX PUBLICS ET DES COMMUNICATIONS:
*10s. Vehicles, Road Construction Machinery. April 4. E.S.B. 53597/70/J.

NETHERLANDS
Bulletin 46/70
HEADQUARTERS AFCENT:
*Furniture. April 10. E.S.B. 53530/70/J.
Bulletin 47/70
DIRECTOR GENERAL OF WATERWAYS:
Construction of Bridges. April 7. E.S.B. 53594/70/J. 53595/70/J.
Construction of Dredge Super Structures. April 7. E.S.B. 53600/70/J.
Bulletin 48/70
Construction of Bridges. April 4. E.S.B. 53768/70/J.

NEW ZEALAND
Bulletin 45/70
GOVERNMENT PRINTING OFFICE:
*3s. Draughting Equipment. April 14. E.S.B. 53408/70/J.
POST OFFICE HEADQUARTERS:
*43s. Telephone Cords and Cordage. March 31. E.S.B. 53475/70/J.
Bulletin 46/70
HEADQUARTERS, ALLIED FORCES, CENTRAL EUROPE:
*Teletype Paper and Tape. April 10. E.S.B. 53480/70/J.
POST OFFICE HEADQUARTERS:
*8s. Telegraph Regenerative Repeater. April 6. E.S.B. 53478/70/J.
*4s. Electronic Valves. April 1. E.S.B. 53479/70/J.
MINISTRY OF WORKS:
*2s. Water Hose. April 1. E.S.B. 53481/70/J.
Bulletin 47/70
POST OFFICE HEADQUARTERS:
*3s. Insulation and Continuity Testers. April 3. E.S.B. 53672/70/J.
Bulletin 49/70
MINISTRY OF WORKS:
*2s. Dynamometer Fan. April 6. E.S.B. 53806/70/J.

PAKISTAN
Bulletin 45/70
PAKISTAN TELEGRAPH AND TELEPHONE DEPARTMENT:
*20s. Steel Sheets and Billets, Pig Iron, Zinc, Lead and Tin Ingots. May 7. E.S.B. 53411/70/J.

(Continued on page 776)

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# The Board of Trade's new Computerised Export Intelligence starts June 2nd

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| 00000 | 00 | 0 | 000 | 0 | 2 JUNE 1970 | 36 | 1 | Export opportunity | |

ITALY: BOILER PARTS, NUCLEAR REACTOR STAINLESS STEEL PARTS, TURBINE PARTS, VALVES (Ref. E.S.D./49727/69)

The Milan based firm of Vincento Bagdanni, which specialises in the building of electric power stations and marine steam engines, has just announced that they have secured the order for a nuclear power station from the Italian Electricity Authority. They are interested in receiving offers from British manufacturers for the following:-

(a) Stainless steel (A.S.T.M.) parts for nuclear reactor internal components:-

| | | | |
|---|---|---|---|
| Plates. | Screws. | Bends. | Sprays. |
| Rims. | Nuts. | Elbows. | Tubes. |
| Flanges. | Spherical | T-pieces. | Forgings. |
| Eyebolts. | segments. | Half couplings. | |

The above items are required urgently.

(CONTINUED)

Specimen information card used by Export Intelligence to give Export Directors the information they need for quick action.

**The Board of Trade now transmits Overseas Market Intelligence to thousands of British companies through the daily Export Service Bulletin.**

**On June 2nd we are transferring to a computer.**

Computerised Export Intelligence is tailored for *you* – the individual subscriber – and designed to save your time. It will supply details of export opportunities matched to *your* products, *your* markets and the intelligence *you* specify. The information will reach you within 48 hours of receipt by the Board of Trade – in cases of urgency it will be sent to you by 'phone or telex.

### 1. What information will be provided?

A daily range of hard news of specific export enquiries.

Changes in tariff and import regulations. Dates of visits by overseas buyers. Other export intelligence – tailored to the needs of individual companies.

Quarterly economic and trading reports covering 100 countries.

Advance information about special promotions planned with Board of Trade backing.

### 2. Where will the information come from?

From 220 British Embassies, High Commissions and Consulates throughout the world. Last year they reported 30,000 items of export intelligence. In 1971 we expect this figure to reach 50,000. Much of the information is exclusive. It covers all sectors of British industry.

### 3. How will it be analysed?

By the Board of Trade's own ICL computer – into nearly 5,000 product categories, 200 geographical categories, and 14 different types of intelligence.

The computer will match all incoming enquiries to registered subscribers' stated needs and individual cards will be printed-out during the night, then posted by first-class mail.

### 4. What does the computer record?

The computer records the data you give us. You are asked to specify your products, markets and range of information you want – in precise terms. If required, each department of your company can receive its own tailor-made information – direct.

In addition, provision has been made for Project and Services information: for example, architects, banks, consultants, and others, whose interests cut across standard product and market categories. Up-dating

the information you want can be done at any time, and as often as you need.

**5. How about the Export Service Bulletin?**

On June 1st it will cease publication. Leading British export companies acknowledge that it has been most valuable. But the new Export Intelligence Service will do an even better job.

**6. Can I get advice on how to make the most of the service?**

Yes – from the Export Intelligence Service at the Board of Trade. Telephone 01-248 9633, Extension 7049. Telex 886143. (Answer back: BOTHILLGATE LDN.) *Or by contacting any of the Board of Trade Offices shown below.*

**7. How much will it cost?**

The basic cost of the service is £25 a year. For this sum you will receive up to 500 cards on every country/subject for which you have registered, plus much free background information. The computer will bill you for a further £25 either on the anniversary of your joining if you have received fewer than 500 cards, or as soon as you have received 500 cards.

**The determination of the Board of Trade to provide an ever more modern series of world-wide services for British Exporters is demonstrated by this new Export Intelligence Service.**

**IF YOU HAVE NOT ALREADY JOINED, COMPLETE AND POST THE COUPON BELOW TODAY.**

**H.Q. London: 01-248 9633 Telex: 886143**

**Belfast** (Ministry of Commerce) 34488 Telex 74578 · **Birmingham** 021-643 8221 Telex 33702 **Bristol** 21071 Telex 44214
**Cardiff** 62151 Telex 49267 · **Glasgow** 041-248 2855 Telex 77583 · **Leeds** 20485 Telex 55472 · **London** (South Eastern Counties) 01-828 4355 Telex 25991
(Eastern Counties) 01-828 6271 Telex 25991 · **Manchester** 061-832 9321 Telex 66104 · **Newcastle** 27575 Telex 53178

# I want to profit by the world's most advanced export information service

**To: The Director,**
**Export Intelligence, Board of Trade, Hillgate House,**
**35 Old Bailey, London, EC4.**

***I am interested in Computerised Export Intelligence. Please send me full details of your new service.***

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COMPANY.....

ADDRESS.....

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## OPPORTUNITIES FOR EXPORTERS, *continued*

**Bulletin 47/70**
CHITTAGONG WATER SUPPLY AND SEWERAGE AUTHORITY:
*55s. **Water Supply Equipment and Materials.** (Further Information.) E.S.B. 52871/70/J.
**Water Meters and Appurtenances.** May 26. E.S.B. 53620/70/J.
PAKISTAN WATER AND POWER DEVELOPMENT AUTHORITY:
**Laying of Pipeline.** April 15. E.S.B. 53674/70/J.

**Bulletin 49/70**
WEST PAKISTAN RAILWAY BOARD:
*30s. **Steel Plate Sheets and Channels.** (Further Information.) E.S.B. 53358/70/J.
**Milling and Line Boring Machine.** April 15. E.S.B. 53776/70/J.
PAKISTAN TELEGRAPH AND TELEPHONE DEPARTMENT:
*21s. **Telephone Carrier Equipment.** (Further Information.) E.S.B. 53168/70/J.

### SAUDI ARABIA

**Bulletin 46/70**
MINISTRY OF DEFENCE AND AVIATION:
**Electrical Requirements.** April 1. E.S.B. 53615/70/J.
**Medicines.** April 19. E.S.B. 53614/70/J.

**Bulletin 48/70**
ARAB PETROLEUM CO. LTD.:
**Drilling Pipes.** April 22. E.S.B. 53727/70/J, 53728/70/J.
**Hoses.** April 2. E.S.B. 53729/70/J.
**Cement.** April 15. E.S.B. 53730/70/J.

### SINGAPORE, REPUBLIC OF

**Bulletin 47/70**
PUBLIC WORKS DEPARTMENT:
**Penstock.** April 28. E.S.B. 53449/70/J.
**Penstocks and Valves.** April 28. E.S.B. 53450/70/J.
PUBLIC UTILITIES BOARD:
**Pumping Plant and Ancillary Equipment.** Closing date postponed to April 14. (Further Information.) E.S.B. 51910/70/J.

### SOUTH AFRICA, REPUBLIC OF

**Bulletin 46/70**
CAPE PROVINCIAL TENDER BOARD:
*4s. **Surgeons' Gloves.** March 31. E.S.B. 53549/70/J.
*8s. **Surgical Equipment.** March 31. E.S.B. 53553/70/J.
*6s. **Dressing Gowns, Towels and Bibs.** March 31. E.S.B. 53554/70/J.

**Bulletin 47/70**
NATAL PROVINCIAL ADMINISTRATION:
*18s. **Pharmaceuticals.** April 1. E.S.B. 53560/70/J.
STATE TENDER BOARD:
*34s. **Electrocardiograph Machine and Recording Paper.** July 31. E.S.B. 53655/70/J.
SOUTH AFRICAN IRON AND STEEL INDUSTRIAL CORPORATION:
***Temper Mill and Equipment.** June 19. E.S.B. 53656/70/J.
TRANSVAAL PROVINCIAL TENDER BOARD:
*45s. **Lawn Mowers.** April 3. E.S.B. 53654/70/J.
CAPE PROVINCIAL TENDER BOARD:
*2s. **Drill Presses.** April 3. E.S.B. 53497/70/J.
*3s. **Electric Test Bench.** April 3. E.S.B. 53498/70/J.

### SUDAN

**Bulletin 46/70**
PUBLIC AGRICULTURAL PRODUCTION:
*3s. **Scales.** March 30. E.S.B. 53500/70/J.

**Bulletin 47/70**
*3s. **Workshop Machinery.** April 1. E.S.B. 53499/70/J.

### SYRIAN ARAB REPUBLIC

**Bulletin 47/70**
GENERAL PETROLEUM COMPANY:
**Fire Fighting Apparatus and Equipment.** April 18. E.S.B. 53667/70/J.
ORGANIZATION OF SYRIAN RAILWAYS:
**Railcars, Railway Passenger Wagons.** Closing date postponed to March 31. (Further Information.) E.S.B. 51267/70/J.
METALLIC CONSTRUCTIONS AND MECHANICAL INDUSTRIES CO.:
**Workshop Equipment and Materials.** April 2. E.S.B. 53668/70/J.

**Bulletin 48/70**
DIRECTORATE-GENERAL OF CIVIL DEFENCE:
**Drills.** April 6. E.S.B. 53571/70/J.

### TAIWAN

**Bulletin 45/70**
CENTRAL TRUST OF CHINA:
*5s. **Telecommunication Equipment.** March 31. E.S.B. 53423/70/J.
*6s. **Lighting Equipment.** April 22. E.S.B. 53463/70/J.
*2s. **Steel Line Pipe.** April 1. E.S.B. 53465/70/J.
*5s. **Railway Vehicle Brake Spare Parts.** April 23. E.S.B. 53466/70/J.
*1s. **Sumithion; Dimethoate.** April 24. E.S.B. 53468/70/J.
*3s. **Pneumatic Hammer.** April 2. E.S.B. 53469/70/J.
*5s. **Tablet Making Equipment.** April 24. E.S.B. 53464/70/J.
*4s. **Alloy Steel Tubes and Fittings.** April 24. E.S.B. 53467/70/J.
*20s. **Sub-station Equipment.** April 22. E.S.B. 53462/70/-.

**Bulletin 46/70**
*12s. **Dust Precipitator; Venturi Scrubbers.** March 31. E.S.B. 53424/70/J.
*12s. **Arc Furnaces.** April 21. E.S.B. 53427/70/J.
*6s. **Air Shooter Equipment.** April 21. E.S.B. 53444/70/J.
*4s. **Bronze Wire Cloth.** April 22. E.S.B. 53426/70/J.
*2s. **Bronze Wire Cloth.** March 31. E.S.B. 53425/70/J.
*4s. **Filter Cloth and Filter Back Cloth.** April 24. E.S.B. 53617/70/J.
*4s. **Synthetic Phenol.** April 27. E.S.B. 53618/70/J.
*3s. **Metallurgical Specimen Dryer.** March 30. E.S.B. 53557/70/J.

**Bulletin 47/70**
*6s. **Switchgear Cubicles for Pumps.** April 28. E.S.B. 53552/70/J.
*22s. **Chlorination Equipment.** April 20. E.S.B. 53470/70/J.
*4s. **Mash Filtration Press.** April 7. E.S.B. 53541/70/J.
*2s. **Di-malic Acid.** April 6. E.S.B. 53558/70/J.
*6s. **Ingot Moulds.** April 21. E.S.B. 53446/70/J.

### TANZANIA

**Bulletin 48/70**
MINISTRY OF AGRICULTURE, FOOD AND CO-OPERATIVES:
**Pipes and Fittings.** April 9. E.S.B. 53710/70/J.

### THAILAND

**Bulletin 48/70**
METROPOLITAN ELECTRICITY AUTHORITY:
*21s. **Transformers.** April 17. E.S.B. 53751/70/J.
THAILAND TOBACCO MONOPOLY:
**Cellulose Film.** April 2. E.S.B. 53733/70/J.

### TURKEY

**Bulletin 47/70**
MINISTRY OF EDUCATION:
*5s. **Workshop Machinery.** March 31. E.S.B. 53663/70/J.
LAND FORCES COMMAND:
*22s. **Industrial Chemicals.** April 9. E.S.B. 53682/70/J.
***Wrapping Foil Sheet.** April 9. E.S.B. 53681/70/J.
TURKISH SUGAR FACTORIES INC.:
*11s. **Turbo-Generator Set.** April 6. E.S.B. 53680/70/J.
PTT GENEL MUDURLUGU:
*39s. **Printed Circuit Shop Equipment.** April 15. E.S.B. 53662/70/J.

**Bulletin 48/70**
TURKISH GENERAL STAFF:
*6s. **Ultrasonic Bonder, Diffusion Furnace.** April 15. E.S.B. 53685/70/J.
*9s. **Electronic Instruments.** April 16. E.S.B. 53686/70/J.
*6s. **Laboratory Equipment.** April 14. E.S.B. 53684/70/J.
*7s. **Analyzers.** April 13. E.S.B. 53683/70/J.
MINISTRY OF EDUCATION:
*10s. **Electrical and Electronic Apparatus and Equipment.** March 31. E.S.B. 53568/70/J.
TURKISH SUGAR FACTORIES INC.:
*11s. **Cube Sugar Packaging Plants.** April 6. E.S.B. 53679/70/J.
STATE HYDRAULIC WORKS:
*7s. **Electric Motors and Accessories.** April 3. E.S.B. 53690/70/J.

### UNITED STATES OF AMERICA

**Bulletin 46/70**
BONNEVILLE POWER ADMINISTRATION:
*109s. **Transformers.** March 31. E.S.B. 53652/70/J.

**Bulletin 47/70**
PORTLAND DISTRICT CORPS OF ENGINEERS:
*87s. **Substations; Control Centres.** May 5. E.S.B. 53587/70/J.

### URUGUAY

**Bulletin 46/70**
ADMINISTRACION DE LAS OBRAS SANITARIAS:
*8s. (In Spanish.) **Time Recording Clocks.** March 4. E.S.B. 53567/70/J.
ANCAP:
***Bottling Equipment.** Closing date postponed to April 15. (Further Information.) E.S.B. 51329/69/J.
OSE (STATE WATERWORKS):
*11s. (In Spanish.) **Hand Tools.** April 1. E.S.B. 53566/70/J.

**Bulletin 47/70**
ANCAP:
*11s. (In Spanish.) **Steel Pipes and Fittings.** April 8. E.S.B. 53562/70/J.
*16s. (In Spanish.) **Steel Rails and Accessories.** April 24. E.S.B. 53563/70/J.
*8s. (In Spanish.) **Electric Drills.** April 9. E.S.B. 53565/70/J.
*7s. (In Spanish.) **Copper Ingots.** April 8. E.S.B. 53561/70/J.
*8s. (In Spanish.) **Thermometers and Graphs.** April 9. E.S.B. 53564/70/J.

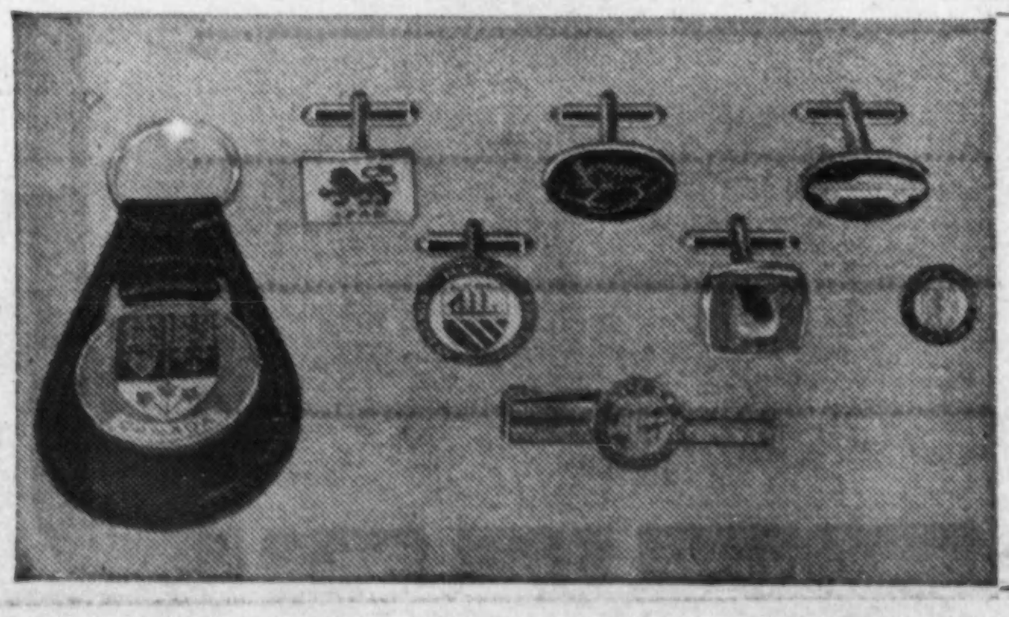
### YUGOSLAVIA

**Bulletin 45/70**
OKI ORGANSKO KEMISSKA INDUSTRIJA:
*1s. (Press Notice.) **Thermo Plastic Materials Processing Equipment.** May 12. E.S.B. 53375/70/J.
SEKTOR ZA RAZVOS, BUKOVICKE BANSE:
*1s. **Bottle Washing, Filling, Labelling, etc., Equipment.** May 12. E.S.B. 53376/70/J.
TEKIG-INVEST:
*1s. **Textile Filament Conversion Machine, etc.** May 12. E.S.B. 53377/70/J.
CESTNO PRODJETJE KRANJ:
*1s. **Quarrying Equipment.** May 12. E.S.B. 53378/70/J.
INVEST-IMPORT-TERAZIJE:
*68s. (In Serbo Croat and German.) **Control Equipment.** May 12. E.S.B. 53384/70/J.
FURNITURE FACTORY NAMESTAY:
*1s. (Press Notice.) **Woodworking Machinery.** May 12. E.S.B. 53385/70/J.
FOREIGN AND INTERNAL TRADE ENTERPRISE:
*1s. **Pump.** May 12. E.S.B. 53431/70/J.
STOKO PROMET EXPORT-IMPORT SKOPJE:
*1s. **Ice Cream Production Machines.** May 12. E.S.B. 53432/70/J.
ORGANSKO KONIJSKA INDUSTRIFA:
*1s. (Press Cutting.) **Cranes.** May 12. E.S.B. 53433/70/J.
JUGOLABORATORIJA. EXPORT-IMPORT:
*3s. **Laboratory Equipment.** May 12. E.S.B. 53434/70/J.

**Bulletin 46/70**
ELEKTROPSKRBA:
*1s. (Press Notice.) **Ice Cream Machines.** May 19, E.S.B. 43435/70/J.
INVEST-IMPORT:
**Clay Factory Classifier.** May 19. E.S.B. 53471/70/J.

**Bulletin 47/70**
METALKA, IMPORT-EXPORT ENTERPRISE:
*1s. **Plastics Working Machinery, Press, Pump.** May 19. E.S.B. 53488/70/J.
ENTERPRISE TEHNOMETAL-MAKEDONIJA:
*2s. **Amusement Machines and Equipment.** May 19. E.S.B. 53484/70/J.
MAKEDONIJAKOOP EXPORT-IMPORT:
*1s. **Poultry Farm Buildings and Equipment.** May 19. E.S.B. 53485/70/J.
TEKIG-INVEST:
*1s. **Shirt Manufacturing Machines and Equipment.** May 19. E.S.B. 53486/70/J.
FRUIT LIQUER COMBINE:
*2s. **Computer.** May 19. E.S.B. 53491/70/J.

**Bulletin 48/70**
REPUBLICKI ZAVOD DA SOCIJALNO:
*3s. **Electronic Accounts System.** May 19. E.S.B. 53490/70/J.



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# Opportunities for exporters—Agency inquiries, market reports, etc.

*Brief details are given below of some inquiries for British goods, offers to represent British principals, market reports, etc., published in recent issues of the* **Export Service Bulletin.** *Copies of the Bulletins, which contained the original notices, and photocopies of any document relating to them may be purchased by British firms.*

*Orders for Bulletins (2s. each) and documents (the price of these varies – see individual notices) must be accompanied by a remittance for the correct amount in the form of a cheque or postal order (not postage stamps) made payable to the Principal Accountant, Board of Trade, and should state the country, commodity and reference number. However, firms which have opened Deposit Accounts with Export Services Division, Board of Trade, may order Bulletins or photocopies by telephone, telex or letter unaccompanied by a remittance.*

**Note:** *An asterisk in the text indicates that documents may be borrowed.*

*All inquiries should be addressed to the Editor,* **Export Service Bulletin,** *Board of Trade, Room H09, Hillgate House, 35 Old Bailey, London, E.C.4 Telephone:* 01-248 5757, *Extns.* 7016, 7017, *Telex:* 886143, *Answer Back BOTHILLGATE LDN, Telegram: EXSERBRA.*

**ANGOLA**

**Bulletin 46/70**
Agency inquiry for oxygen cylinders. E.S.B. 5237/79/J.

**Bulletin 48/70**
Agency inquiry for beach and sports equipment; domestic electrical appliances; kitchenware; paper; tableware. E.S.B. 53053/69/J.

**ARGENTINA**

**Bulletin 46/70**
Inquiry for zip fasteners. E.S.B. 6051/70/J.

**AUSTRALIA**

**Bulletin 45/70**
Agency inquiry for builder's supplies, electrical goods. E.S.B. 6207/70/J.

**Bulletin 47/70**
Agency inquiry for floor coverings; plastic sheeting; polypropylene woven laminates; trimmings; upholstery fabrics. E.S.B. 6385/70/J.

**Bulletin 48/70**
Inquiry for harness furniture; horseshoes; saddlery hardware. E.S.B. 6774/70/J.
Inquiry for confirming/buying house. E.S.B. 5215/70/J.

**Bulletin 49/70**
Agency inquiry for magazines. E.S.B. 6698/70/J.

**AUSTRALIA – WAIVER OF BRITISH PREFERENCE**

**Bulletin 46/70**
9s. Inquiry for bolts and nuts. E.S.B. A/16/70/J.
10s. Inquiry for cable. E.S.B. A/15/70/J.
2s. Inquiry for transmitters. E.S.B. M/5/70/J.
Inquiry for automatic feeding and foil wrapping plant. E.S.B. M/6/70/J.

**Bulletin 49/70**
Inquiry for tube filling and closing machines. E.S.B. S/21/70/J.

**AUSTRIA**

**Bulletin 45/70**
Inquiry for curtain materials; reproduction furniture. E.S.B. 6337/70/J.

**Bulletin 46/70**
Agency inquiry for flame cutters. E.S.B. 4590/70/J.
Inquiry for skirts. E.S.B. 3554/70/J.
Inquiry for cable; wire. E.S.B. 38069/69/J.

**BAHAMAS**

**Bulletin 47/70**
Inquiry for books; giftware and souvenirs; leather goods; pharmaceuticals; stationery; toys. E.S.B. 6604/70/J.

**Bulletin 49/70**
Inquiry for airline travel bags. E.S.B. 3688/70/J.

**BARBADOS**

**Bulletin 49/70**
Inquiry for building materials. E.S.B. 5986/70/J.

**BELGIUM**

**Bulletin 45/70**
Inquiry for grinding machine. E.S.B. 6287/70/J.
Manufacture under licence/source of supply – ethical pharmaceuticals. E.S.B. 5784/70/J.

**Bulletin 49/70**
Agency inquiry for shoe linings. E.S.B. 6678/70/J.

**BERLIN**

**Bulletin 45/70**
Inquiry for sound recording tape production plant. E.S.B. 47056/69/J.

**Bulletin 46/70**
Inquiry for pipe mouthpieces. E.S.B. 6342/70/J.

**Bulletin 49/70**
Agency inquiry for wood plates production plant. E.S.B. 4449/70/J.

**BOLIVIA**

**Bulletin 49/70**
Inquiry for broadcasting equipment. E.S.B. 6995/70/J.

**BULGARIA**

**Bulletin 45/70**
1s. each copy. Inquiry for sieves; rubber strip working machinery; tyre manufacturing machinery; bone glue and bone meal plant and equipment; metasilicates plant and equipment; stators winding machine. E.S.B. 3774/70/J.

**Bulletin 48/70**
Inquiry for metals and metal products; refractory materials; carbon and graphite products. E.S.B. 3920/70/J.

**CANADA**

**Bulletin 45/70**
Distributorship/manufacture under licence – do-it-yourself materials and items; pesticides. E.S.B. 5414/70/J.
Agency inquiry for closed circuit television equipment. E.S.B. 6228/70/J.
15s. Inquiry for magnetic cones. E.S.B. 6344/70/J.

**Bulletin 46/70**
Agency inquiry for pollution control instruments. E.S.B. 5135/70/J.
Inquiry for motor caravans. E.S.B. 6563/70/J.
Inquiry for fairlead. E.S.B. 3164/70/J.
Inquiry for hobby and model kits. E.S.B. 6502/70/J.

**Bulletin 47/70**
Agency inquiry for horse-riding clothing and equipment. E.S.B. 5083/70/J.
Agency inquiry for safety pins. E.S.B. 6508/70/J.
Inquiry for fabrics. E.S.B. 6509/70/J.
Agency inquiry for steel rail; rail track spikes and bolts. E.S.B. 5810/70/J.

**Bulletin 48/70**
Inquiry for miniaturized meter movements. E.S.B. 6468/70/J.
Inquiry for saw blades. E.S.B. 6499/70/J.
Agency inquiry for hand tools. E.S.B. 6510/70/J.
Agency inquiry for leather clothing. E.S.B. 6266/70/J.
Agency inquiry for gift-packed toiletries. E.S.B. 6458/70/J.

**Bulletin 49/70**
Agency inquiry for dust collection equipment. E.S.B 3592/70/J.
Agency inquiry for clothing; knitwear; sports wear. E.S.B. 6629/70/J.
Inquiry for protective coatings and products; decorative waterproof specialities. E.S.B. 6370/70/J.
Inquiry for damask tickings; printed ticking. E.S.B. 6680/70/J.
Inquiry for restaurant equipment. E.S.B. 7174/70/J.

**CANARY ISLANDS**

**Bulletin 46/70**
Inquiry for electrical appliances; furs; knitwear; refrigerators; tiles; water heaters. E.S.B. 6057/70/J.

**COSTA RICA**

**Bulletin 45/70**
Inquiry for library book conveyors. E.S.B. 24252/69/J.

**CYPRUS**

**Bulletin 47/70**
Inquiry for ceramics manufacturing machinery and equipment. E.S.B. 3770/70/J.

**Bulletin 48/70**
Agency inquiry for fabrics; shirtings; suitings. E.S.B. 3147/70/J.

**DENMARK**

**Bulletin 46/70**
Inquiry for extruder. E.S.B. 6365/70/J.
Inquiry for rubber gloves. E.S.B. 6713/70/J.
Inquiry for reflectors; brake wire cable; steering wheels. E.S.B. 3906/70/J.
Inquiry for metal hose. E.S.B. 14717/69/J.
Inquiry for stopcocks. E.S.B. 5279/70/J.

**Bulletin 47/70**
Inquiry for capacitors; lenses; springs. E.S.B. 6672/70/J.

**DENMARK/POLAND**

**Bulletin 47/70**
Trade Agreement. E.S.B. 1209/G/J.

**DENMARK/EAST GERMANY**

**Bulletin 47/70**
Trade Agreement. E.S.B. 1209/G/J.

**DENMARK**

**Bulletin 48/70**
Agency inquiry for coats; fur coats. E.S.B. 6304/70/J.
Agency inquiry for pumps. E.S.B. 10305/69/J.

**Bulletin 49/70**
Inquiry for clothing. E.S.B. 6958/70/J.
Agency inquiry for lime juice. E.S.B. 5650/70/J.
Inquiry for plastic disposable tableware. E.S.B. 7031/70/J.
Agency inquiry for ship's anchors and anchor chains. E.S.B. 19599/69/J.

**ECUADOR**

**Bulletin 47/70**
Closure of HM Consulate at Guayaquil. E.S.B. 1209/G/J.

**EL SALVADOR**

**Bulletin 45/70**
Agency inquiry for freezers; refrigerators. E.S.B. 6060/70/J.
Inquiry for acetylene solders; block cutting equipment; crane; rotary rasps; steel wire; stone-working machinery; upholstery materials; wood-working machinery. E.S.B. 6162/70/J.

**Bulletin 49/70**
Agency inquiry for burglar alarms; car accessories. E.S.B. 51830/69/J.
Agency inquiry for paraffin wax; tallow. E.S.B. 47063/69/J.

*(Continued on next page)*

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**ETHIOPIA**

**Bulletin 49/70**
Agency inquiry for biscuits; jams; toothpaste; women's toiletries. E.S.B. 6786/70/J.

**FAROE ISLANDS**

**Bulletin 48/70**
Inquiry for textile machinery. E.S.B. 7152/70/J.

**FINLAND**

**Bulletin 46/70**
Agency inquiry for steel wire. E.S.B. 6261/70/J.

**FRANCE**

**Bulletin 45/70**
Agency inquiry for diagram paper and allied products. E.S.B. 6208/70/J.
Inquiry for chemicals. E.S.B. 6380/70/J.

**Bulletin 46/70**
Inquiry for knitwear; women's clothing. E.S.B. 5932/70/J.
Inquiry for high quality women's clothing. E.S.B. 6339/70/J.

**Bulletin 47/70**
Inquiry for automobile accessories. E.S.B. 6742/70/J.

**Bulletin 48/70**
Inquiry for domestic electric appliances; electric cookers. E.S.B. 6483/70/J.
Inquiry for lighting fittings. E.S.B. 52907/69/J.
Agency inquiry for petro-refinery and petro-chemical, works equipment. E.S.B. 6196/70/J.
Inquiry for mechanical handling equipment; storage equipment. E.S.B. 6733/70/J.

**Bulletin 49/70**
Inquiry for castings. E.S.B. 3492/69/J.
Inquiry for air-conditioning and ventilation equipment; central heating equipment; electrical equipment; sanitary equipment; sinks. E.S.B. 6966/70/J.
Inquiry for equipment for the chemical, petro-chemicals desalinization, food processing, water pollution and plastics industries. E.S.B. 6378/70/J.
Inquiry for forgings dies; mechanical handling equipment. E.S.B. 6192/70/J.
Agency inquiry for fabrics. E.S.B. 6451/70/J and E.S.B 6712/70/J.

**GERMANY**

**Bulletin 45/70**
Inquiry for street cleaning equipment. E.S.B. 5766/70/J
Inquiry for ketchup holders. E.S.B. 6384/70/J.
Inquiry for autoclaves. E.S.B. 4308/70/J.
Inquiry for beverages; confectionery; foodstuffs. E.S.B. 5866/70/J.

**Bulletin 46/70**
Inquiry for herrings. E.S.B. 6390/70/J.
1s. Inquiry for first aid kits. E.S.B. 5946/70/J.
Agency inquiry for women's clothing. E.S.B. 6539/70/J.

**Bulletin 47/70**
Inquiry for foodstuffs. E.S.B. 6550/70/J.
Agency inquiry for gauze bandages. E.S.B. 7016/70/J.
Inquiry for cables; lamps; patch cords; plugs; push-buttons; switches; time relays. E.S.B. 5248/70/J.
1s. Inquiry for flanges; steel pipes and tubes; steel and zinc plates; tubular bends; wedge gate valves. E.S.B. 4846/70/J.

**Bulletin 48/70**
Agency inquiry for fruit powders; sausage casings. E.S.B. 6548/70/J.
Agency inquiry for electro-optical equipment. E.S.B. 3859/70/J.
Inquiry for children's books, clothing and sweets. E.S.B. 32837/69/J.
Inquiry for foundry sand slingers. E.S.B. 6487/70/J.
Inquiry for pig iron. E.S.B. 7180/70/J.

**Bulletin 49/70**
Inquiry for plywood doors. E.S.B. 46444/69/J.
Agency inquiry for prefabricated sheds; roofing materials and equipment. E.S.B. 4259/70/J.
Inquiry for biscuits. E.S.B. 27232/69/J.
Agency inquiry for domestic electrical appliances; acoustic equipment; hand tools; hunting equipment; novelties for anglers. E.S.B. 4036/70/J.
Agency inquiry for furniture. E.S.B. 6554/70/J.
Inquiry for conveyor belts; hoses. E.S.B. 6199/70/J.
Inquiry for food products. E.S.B. 6876/70/J.
Agency inquiry for foodstuffs; confectionery. E.S.B. 6857/70/J.
Manufacture under licence - water treatment plant. E.S.B. 5648/70/J.
Inquiry for knitwear. E.S.B. 6732/70/J.
Inquiry for keyway milling machines. E.S.B. 7237/70/J.
Agency inquiry for fabrics. E.S.B. 6706/70/J.
Inquiry for alcoholic drinks; confectionery. E.S.B. 6854/70/J.
Agency inquiry for piece-goods. E.S.B. 6787/70/J.
Inquiry for thermo-plastic building materials. E.S.B. 6503/70/J.

**GREECE**

**Bulletin 45/70**
Agency inquiry for clothing; floor coverings; plastic cloth and materials. E.S.B. 5597/70/J.

**Bulletin 46/70**
Agency inquiry for aluminium, copper, brass and steel sheets; clothing; fabrics; pharmaceuticals; record players; shoes; television sets. E.S.B. 5757/70/J.
Agency inquiry for steel; steel coils, plates and sheets. E.S.B. 51655/69/J.
Agency inquiry for photocopy machines and materials; photographic accessories; X-ray films. E.S.B. 6148/70/J.
Agency inquiry for steel. E.S.B. 6183/70/J.

**Bulletin 48/70**
Agency inquiry for printing machinery tools. E.S.B. 6411/70/J.

*Plant hire specialists, building contractors and industrialists from France, Germany, Holland and Scandinavia were among overseas visitors who attended the first joint exhibition and demonstration of Coles and Priestman products at Feltham, Middlesex, recently. The six-day show, which featured the first appearance of the Coles Hydra 250T, 25-ton capacity diesel-hydraulic telescopic boom truck crane and the Priestman 90M materials handling machine, attracted a record number of home and overseas visitors. Pictured here on their arrival are parties from Holland and France, together with sales executives from distributors Zeevenhooven & Co. NV and Coles France SA, the French daughter company of the British Crane & Excavator Corporation.*

**Bulletin 49/70**
Agency inquiry for television CKD parts. E.S.B. 5744/70/J.
Inquiry for wire. E.S.B. 6758/70/J.

**GUATEMALA**

**Bulletin 45/70**
Inquiry for PVC accessories for water pipes; drainage and ventilation. E.S.B. 5403/70/J.

**Bulletin 49/70**
Agency inquiry for tin; zinc. E.S.B. 5771/70/J.

**GUYANA**

**Bulletin 49/70**
Agency inquiry for abrasive paper; brooms; brushes; curtain rods; glassware; handkerchiefs; hollow-ware; suitings. E.S.B. 4375/79/J.

**HONG KONG**

**Bulletin 45/70**
Agency inquiry for mirrors. E.S.B. 16580/69/J.

**Bulletin 48/70**
Inquiry for cable; electric elements; electric plugs; lampholders. E.S.B. 6661/70/J.

**ICELAND**

**Bulletin 45/70**
Agency inquiry for suitings. E.S.B. 6149/70/J.

**Bulletin 46/70**
Agency inquiry for men's cotton sweaters. E.S.B. 5963/70/J.

**Bulletin 48/70**
Agency inquiry for confectionery; foodstuffs; paper products; toiletries. E.S.B. 6715/70/J.

**Bulletin 49/70**
Agency inquiry for clothing. E.S.B. 6716/70/J.

**INDIA**

**Bulletin 46/70**
Agency inquiry for tanning and footwear machinery and allied equipment. E.S.B. 6078/70/J.

**Bulletin 47/70**
2s. Inquiry for steel sheets. E.S.B. 6793/70/J.

**Bulletin 48/70**
1s. Inquiry for steel sheets, strips and tubes. E.S.B. 6853/70/J.

**IRISH REPUBLIC**

**Bulletin 47/70**
Inquiry for granite; slate granules. E.S.B. 4473/70/J.

**ISRAEL**

**Bulletin 45/70**
Inquiry for antibiotics; syringes; vitamins. E.S.B. 6284/70/J.
Agency inquiry for beryllium rolls and profiles; mica powder and sheets; polyurethane profiles. E.S.B. 49560/69/J.
Inquiry for steel bar. E.S.B. 6259/70/J.

**Bulletin 46/70**
Agency inquiry for aluminium alloys; brass rod gauges; machine tools. E.S.B. 6316/70/J.

**Bulletin 49/70**
Inquiry for hospital furniture. E.S.B. 6768/70/J.
Agency inquiry for actuators; switches. E.S.B. 6875/70/J.
Agency inquiry for furnishing fabrics; reproduction furniture. E.S.B. 6874/70/J.

**ITALY**

**Bulletin 45/70**
Agency inquiry for hunting weapons and accessories. E.S.B. 5692/70/J.
Agency inquiry for carpets and moquettes. E.S.B. 5889/70/J.
Agency inquiry for piece-goods; shoes; socks; ties. E.S.B. 5877/70/J.

**Bulletin 46/70**
Agency inquiry for tea. E.S.B. 6174/70/J.
Inquiry for aluminium ingots; electric motors. E.S.B. 6413/70/J.
Inquiry for floating dock. E.S.B. 6576/70/J.
Inquiry for radio and television components. E.S.B 6702/70/J.

**Bulletin 47/70**
Inquiry for electrolytic condensers, condensers, electrolytic resistors. E.S.B. 6638/70/J.
Inquiry for trouser manufacturing plant. E.S.B. 6416/70/J.
Inquiry for screw making machinery; wire. E.S.B. 6673/70/J.
Inquiry for castings; forgings. E.S.B. 5858/70/J.

**Bulletin 48/70**
Inquiry for isocyanate. E.S.B. 6674/70/J.
Inquiry for canned foodstuffs; synthetic glue; tinplate. E.S.B. 6587/70/J.
Inquiry for stainless steel capillary tubes. E.S.B. 5177/70/J.
Inquiry for castings. E.S.B. 5082/70/J.
Manufacture under licence - container handling cranes. E.S.B. 6566/70/J.
Inquiry for foils; lacquers; synthetic pearl essences. E.S.B. 6547/70/J.

**Bulletin 49/70**
Agency inquiry for cutlery; giftware; kitchenware utensils; picnic sets; vacuum ware. E.S.B. 6617/70/J.
Agency inquiry for masking film. E.S.B. 6636/70/J.
Agency inquiry for iron and iron plates; steel. E.S.B. 16011/69/J.
Inquiry for cotton yarns. E.S.B. 6495/70/J.

**JAMAICA**

**Bulletin 45/70**
Inquiry for fabrics. E.S.B. 5897/70/J.

**JAPAN**

**Bulletin 49/70**
Agency inquiry for flow meter. E.S.B. 6037/70/J.
Agency inquiry for welding equipment. E.S.B. 6851/70/J.

**KUWAIT**

**Bulletin 46/70**
Agency inquiry for cutlery; electrical appliances; glassware; trays; vacuum flasks. E.S.B. 6205/70/J.
Agency inquiry for pharmaceuticals. E.S.B. 50130/69/J

**Bulletin 48/70**
Agency inquiry for agricultural chemicals; chemicals; drilling equipment; laboratory equipment and glassware; pharmaceuticals. E.S.B. 4861/70/J.

**LEBANON**

**Bulletin 46/70**
Agency inquiry for alternators; diesel engines; welding generators and sets. E.S.B. 43396/69/J.

**Bulletin 48/70**
Inquiry for generating sets. E.S.B. 5927/70/J.

**MALAWI**

**Bulletin 48/70**
Inquiry for electrical fittings; fluorescent light fittings and tubes. E.S.B. 1250/70/J.

**Bulletin 49/70**
Inquiry for poultry cages. E.S.B. 6975/70/J.
2s. Inquiry for conveyor or pumping system; fish drying equipment. E.S.B. 53026/69/J.

**MALAYSIA**

**Bulletin 46/70**
Agency inquiry for school scientific apparatus. E.S.B. 5926/70/J.

**Bulletin 48/70**
Inquiry for machine tools. E.S.B. 6829/70/J.

**Bulletin 49/70**
Agency inquiry for medical and surgical instruments; orthopaedic apparatus. E.S.B. 6769/70/J.
Inquiry for electronic components. E.S.B. 50893/69/J.

**MALTA**

**Bulletin 49/70**
Agency inquiry for electric kettles. E.S.B. 6618/70/J.
Inquiry for packaging and sealing machinery; potato processing machinery. E.S.B. 26787/69/J.

**MAURITIUS**

**Bulletin 46/70**
Inquiry for cooling plant and equipment; packing machinery; electric stunner. E.S.B. 6441/70/J.

**MEXICO**

**Bulletin 47/70**
Inquiry for office equipment; stationery. E.S.B. 6120/70/J.

**Bulletin 49/70**
Manufacture under licence/source of supply – asbestos brake shoe linings; asbestos spinning equipment. E.S.B. 6845/70/J.

**NETHERLANDS**

**Bulletin 45/70**
Agency inquiry for valves. E.S.B. 6210/70/J.
Agency inquiry for clothing. E.S.B. 6019/70/J.

**NETHERLANDS/ANTILLES**

**Bulletin 47/70**
Inquiry for washing machines. E.S.B. 6784/70/J.

**Bulletin 48/70**
Agency inquiry for metallic hose; steel valves. E.S.B. 6155/70/J.
Inquiry for building materials, equipment and tools; steel pipe and sheet; structural steel. E.S.B. 6847/70/J.
Inquiry for automotive spare parts and accessories. E.S.B. 6771/70/J.

**Bulletin 49/70**
Inquiry for riding wear and accoutrements. E.S.B. 6891/70/J.
Inquiry for clothing; knitwear; luggage. E.S.B. 6842/70/J.
Inquiry for motorized barrows; scaffolding. E.S.B. 6830/70/J.
Agency inquiry for elevators; lighting equipment. E.S.B. 6838/70/J.
Agency inquiry for lighting equipment. E.S.B. 6844/70/J.

**NEW ZEALAND**

**Bulletin 45/70**
Agency inquiry for capacitors; insulators; semiconductors; television tubes and guns; valves. E.S.B. 6102/70/J.

**Bulletin 47/70**
Inquiry for steel bar. E.S.B. 6544/70/J.
Inquiry for electric blanket material. E.S.B. 6792/70/J.

**NORWAY**

**Bulletin 45/70**
Agency inquiry for household articles; kitchen utensils; plastic footballs; scales; sports goods. E.S.B. 6124/70/J.

**Bulletin 49/70**
Agency inquiry for shirts; socks. E.S.B. 9002/68/J.

**PHILIPPINES, REPUBLIC OF THE**

**Bulletin 48/70**
Agency inquiry for chemicals; cylinder and pistons; gear drives sets and motors; insulators; pumps; refractory materials; steel; transmission materials; valves. E.S.B. 6574/70/J.

**Bulletin 49/70**
Agency inquiry for pharmaceuticals. E.S.B. 6564/70/J.

**PORTUGAL**

**Bulletin 45/70**
Agency inquiry for automobile accessories, tools and machinery. E.S.B. 5569/70/J.

**Bulletin 49/70**
Agency inquiry for giftware; household articles; kitchen appliances; novelties. E.S.B. 6150/70/J.

**PUERTO RICO**

**Bulletin 48/70**
Inquiry for giftware. E.S.B. 6789/70/J.

**QATAR**

**Bulletin 46/70**
Inquiry for foodstuffs. E.S.B. 6466/70/J.
Inquiry for cosmetics; perfumes; pharmaceuticals E.S.B. 6500/70/J.
Inquiry for perfumes. E.S.B. 2641/70/J.

**SINGAPORE, REPUBLIC OF**

**Bulletin 46/70**
Inquiry for building materials; escalators; prefabricated. building systems; PBX systems; sanitary fittings; water heating systems and equipment. E.S.B. 6650/70/J.

**Bulletin 47/70**
Inquiry for antimony sulphide ore processsing plant. E.S.B. 6620/70/J.

**Bulletin 48/70**
Agency/joint venture/ manufacture under licence – electric motor starter; kitchen equipment; laundry equipment; training aids. E.S.B. 5700/70/J.
Agency inquiry for electrical measuring equipment; laboratory and medical equipment. E.S.B. 6197/70/J.

**Bulletin 49/70**
Agency inquiry for shoes. E.S.B. 1489/69/J.

**SOUTH AFRICA**

**Bulletin 47/70**
Agency inquiry for cutlery; glassware; crockery. E.S.B. 6511/70/J.

**Bulletin 49/70**
Manufacture under licence – partitions; suspended ceilings. E.S.B. 5119/70/J.
Agency inquiry for protractors; rulers; set squares. E.S.B. 6646/70/J.

**SPAIN**

**Bulletin 45/70**
Agency inquiry for regulating systems. E.S.B. 4844/70/J.

**SUDAN**

**Bulletin 47/70**
Inquiry for book production machinery; printing machinery. E.S.B. 6659/70/J.

**SWEDEN**

**Bulletin 45/70**
Agency inquiry for machine tools and accessories. E.S.B. 5767/70/J.

**Bulletin 46/70**
Inquiry for projection screen fabric. E.S.B. 6108/70/J.

**Bulletin 47/70**
Inquiry for light bulbs. E.S.B. 6358/70/J.

**Bulletin 48/70**
Agency inquiry for gift articles. E.S.B. 6450/70/J.
Agency inquiry for brewers' yeast; chemicals. E.S.B. 6056/70/J.

**Bulletin 49/70**
Agency inquiry for cellulose film and bags; plastic packaging materials. E.S.B. 6107/70/J.

**SWITZERLAND/ITALY**

**Bulletin 45/70**
Agency inquiry for electric and electronic components E.S.B. 5123/70/J.

**SWITZERLAND**

**Bulletin 46/70**
Inquiry for circuit breakers; distributors; relays. E.S.B. 39444/69/J.

**Bulletin 47/70**
Agency inquiry for yarns. E.S.B. 23353/69/J.
Inquiry for magnetic field measuring equipment. E.S.B. 6825/69/J.
Agency inquiry for paper underwear. E.S.B. 48176/69/J.
Inquiry for transporter brakes. E.S.B. 3932/69/J.

**Bulletin 48/70**
Agency inquiry for centrifuges; electronic components; meters. E.S.B. 5763/70/J.
Inquiry for impulse counters; electronic anti-theft system. E.S.B. 40965/69/J.

**Bulletin 49/70**
Inquiry for footwear. E.S.B. 34392/68/J.
Inquiry for plastic laboratory goods; syringes. E.S.B. 6681/70/J.
Market Report – Gas cookers. E.S.B. 3319/70/J.
Agency inquiry for hardware; household articles; glassware; tableware. E.S.B. 6664/70/J.

**TAIWAN**

**Bulletin 48/70**
1s. Inquiry for bar equipment; barber shop and beauty parlour equipment; chinaware; floor covering; furnishing materials; glassware; household linens; kitchen equipment; laundry equipment; lighting equipment; refrigeration equipment; sanitary equipment; silver tableware. E.S.B. 6583/70/J.

**TANZANIA**

**Bulletin 49/70**
Inquiry for dry cleaning and laundry equipment. E.S.B. 6941/70/J.

**TRINIDAD/TOBAGO**

**Bulletin 49/70**
Inquiry for building materials. E.S.B. 6763/70/J.
Agency inquiry for steel rods, sheets and tubing. E.S.B. 4249/70/J.

**TUNISIA**

**Bulletin 46/70**
Inquiry for floor tiles. E.S.B. 6906/70/J.

**UGANDA**

**Bulletin 46/70**
Agency inquiry for curtain nets; fabrics; PVC. E.S.B. 2275/70/J.

**UNITED ARAB REPUBLIC (EGYPT)**

**Bulletin 48/70**
Agency inquiry for fork lift trucks. E.S.B. 4086/69/J.

**URUGUAY**

**Bulletin 49/70**
Inquiry for cranes. E.S.B. 7311/70/J.

**UNITED STATES OF AMERICA**

**Bulletin 45/70**
Agency inquiry for electronic components. E.S.B. 5901/70/J.
Inquiry for petrol and carburetter filters; vehicle parts and accessories. E.S.B. 6286/70/J.
Inquiry for riding gear. E.S.B. 6110/70/J.

**Bulletin 46/70**
Inquiry for tractors. E.S.B. 5725/70/J.
Agency inquiry for industrial gas turbines. E.S.B. 6488/70/J.
1s. Inquiry for wire. E.S.B. 6482/70/J.

**Bulletin 47/70**
Inquiry for drapery fabrics. E.S.B. 6640/70/J.
Inquiry for cosmetics, dolls, fashion accessories, hair pieces, leather goods, mirrors, toys, travelling cases. E.S.B. 6079/70/J.
Inquiry for earthenware. E.S.B. 6697/70/J.
Inquiry for sporting goods. E.S.B. 6791/70/J.
Market Report – The Electronics Market. E.S.B. 3465/70/J.

**Bulletin 48/70**
Inquiry for paper and pulp making machinery; pollution control equipment. E.S.B. 6076/70/J.
1s. Inquiry for leather holders. E.S.B. 5779/70/J.
Inquiry for cable; power generation and transmission equipment. E.S.B. 6055/70/J.

**Bulletin 49/70**
Inquiry for aluminium shafts. E.S.B. 6955/70/J.
Inquiry for chocolate bars. E.S.B. 2749/70/J.
Agency inquiry for toys. E.S.B. 6545/70/J.
Inquiry for steel castings. E.S.B. 5672/70/J.
Inquiry for alumina ceramics; gold paste; metal stampings and etchings; wire. E.S.B. 6960/70/J.
Inquiry for lamp sockets. E.S.B. 7247/70/J.
Inquiry for naval and military models and giftware. E.S.B. 7138/70/J.
Agency inquiry for plastic products and materials. E.S.B. 5246/70/J.
Inquiry for bolt assemblies; cable clamps; shackles; thimbles; turnbuckles; wire. E.S.B. 2273/70/J.

**VENEZUELA**

**Bulletin 45/70**
Agency inquiry for outboard motors. E.S.B. 5979/70/J.

**Bulletin 48/70**
Agency inquiry for whisky. E.S.B. 6615/70/J.
Inquiry for haberdashery articles. E.S.B. 6523/70/J.

**WINDWARD ISLANDS**

**Bulletin 49/70**
Agency inquiry for cupboard furniture; door furniture; doors; floor coverings; steel bars; tiles. E.S.B. 5890/70/J.

**ZAMBIA**

**Bulletin 48/70**
Inquiry for mosquito gauze; nuts and bolts; sinks; wire. E.S.B. 5372/70/J.

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# Export Missions and Tours

*Businessmen going overseas are reminded that the services of British commercial officers in posts throughout the world are freely available to them. A list of addresses was published in January 14 issue of the* Board of Trade Journal. *Businessmen wishing to avail themselves of this assistance should consult in advance either the regional officers of the Board of Trade (see page viii of October 1 issue) or the Export Services Division, Hillgate House, 35 Old Bailey London, E.C.4 (Tel. 01-248 5757).*

## Visiting Middle East

MR. KENNETH MILNER, manager of overseas operations for Dale Electric of Great Britain Ltd., will be a member of a trade mission to the Middle East which is being sponsored by the BNEC and organized by the Hull Branch of the Institute of Export.

The mission, which left this country on March 15 and returns on April 10, will comprise 7 export executives of leading industrial manufacturing companies, mainly from the East Riding of Yorkshire. The leader will be Mr. F. A. Brown, manager of the Midland Bank Ltd., overseas branch, Hull, while members of the mission will represent manufacturers of paints, vegetable oils, motor oil, toilet requisites, handrailing, pumps, machine tools, fabrics and generating equipment.

The itinerary will include visits in Saudi Arabia, Bahrain, Qatar, Kuwait and the Trucial States, where the members will be visiting their own companies' distributors, with whom they will visit ministerial departments, purchasing officers and authorities in each country concerned.

While in the Trucial States, the mission will pay a courtesy visit upon HH Sheik Khailed Bin Mohammed Al Quasimi, ruler of Sharjah. This visit will be of particular interest to Mr. Milner, whose company recently exported four generating sets, with a total value of £30,000, to the ruler of Sharjah, for installation in power stations in the state of Sharjah. This order followed the installation of some 20 similar sets over the past years.

## Fact-finding tour

VISITING South Africa on a three-week fact-finding tour is Mr. John Snell, export sales manager for Ransomes Sims & Jefferies Ltd., the Ipswich firm of farm machinery manufacturers. This is Mr. Snell's first visit to South Africa since his appointment early this year, and he will be concentrating on means of increasing the penetration of the company's farm machinery in this important export market.

He will travel by road to all parts of the Republic, studying farm conditions and methods at first hand, and producing a thorough and detailed survey for Ransomes marketing division. At the same time he will be negotiating with distributors for an increase in the range of products being offered, especially new product ranges of equipment.

*Bernard Wardle Fabrics Ltd. continue their rapid climb in export sales with more news from Mr. Chris England, export manager, welcomed home by managing director Mr. J. Brian Cleveland, and sales director Mr. J. Roger Cleveland, having completed a three-week selling trip in South Africa. From this short trip, orders worth over £50,000 were taken, and he is confident that this is just the beginning of greater and better things in this area. Mr. J. Brian Cleveland said: 'We are highly optimistic that our efforts in the traditional market of South Africa and Australasia will be even more successful than our record EEC sales where, for example, in Germany last year we reached well into six figures.' Mr. Chris England, who has been with the company for just over a year, leaves for a selling trip to Australasia and New Zealand at the end of March. Already in the current year Bernard Wardle Fabrics are more than 50 per cent up on last year's export figures, so with the present growth rate it is expected to complete the year considerably higher.*

## Overseas sales target

A COMPANY which began exporting only three years ago have set a target of 50 per cent overseas sales by the end of the year.

Mr. Roger H. Steer, managing director, leaves in September to seek out and appoint new agents for Davis-Wayne products in Singapore, Australia and New Zealand. The reversed seasons there will ensure an even flow of orders and level the production peaks associated with the manufacture of heating appliances.

The company recently supplied 40 oil burners to the Malaysian Government through the local agent in Kuala Lumpur. Over 100 burners have gone to Malaysia in the past three months.

Mr. Steer seeks new agents in Western Australia; he will be staying five days in Perth and interested companies can reach him at the Town House Hotel from September 12 to 16 inclusive. In October he will visit Los Angeles returning to London on October 12.

The Davis-Wayne Co. Ltd., of Gosport, Hants., manufacture an extensive range of pressure jet oil burners for industrial and domestic boilers and a range of blown gas burners suitable for petroleum, natural and town gases.

## Visiting United States

MR. JACK LANCASTER, divisional general manager of Crane Fruehauf's service division, has been visiting manufacturing plants and depots in San Francisco, Fresno, Nebraska, Avon Lake, Cleveland, Harrisburg and Kearny, also the main Fruehauf facility at Detroit.

Many aspects of the trailer and container manufacturing, repair and servicing industries were covered during this intensive itinerary, including high-volume trailer and container manufacturing techniques, service and parts supply, dockside repair facilities, container repair techniques, and emergency repair operations.

Earlier, Mr. Lancaster had visited Crane Fruehauf container and servicing bases in Australia and New Zealand.

## Visiting Australia and New Zealand

ON April 2, Mr. Gordon M. Edwards, a director of Marden Edwards and Company of Wimborne, Dorset, will be a member of a trade mission leaving for a month's visit to Australia and New Zealand. The mission – Engtrade '12' – is organized by the Engineering Industries Association through their National Export Committee.

Marden Edwards and Company, who manufacture a wide range of carton overwrapping machines, currently export well over 50 per cent of their production. Overseas 'technical sales' through agents cover approximately 50 countries where sales have been achieved.

## Five-figure Japanese order

MR. C. M. HICKS, export representative for Hawthorn Baker Ltd., Dunstable, Beds., recently returned from a two-week stay in Japan where he investigated the letterpress market for the Cornerstone range of precision printing equipment, particularly honeycomb base and quoins.

He was able to advise the new Cornerstone agent in Tokyo, Dainipon Inks Inc., on the use and application of honeycomb base and obtained the first half of a five-figure order, the second half to follow.

Mr. Hicks will return to Japan in May for the Osaka Printing Exhibition (part of Expo 70) to follow up inquiries and to continue his investigation into the Japanese market.

## Middle East visit

To increase their expanding sales of structural steelwork to overseas markets, especially to Arab territories, the overseas division of Sanders and Forster Ltd. are again sending Mr. A. J. Swain, sales executive, on a tour of the Middle East. He will visit the Lebanon, Saudi Arabia, Bahrain, Qatar, Abu Dhabi, Dubai, Kuwait and Iraq, returning in late April.

Mr. Swain will consolidate many valuable contacts established during earlier tours and will visit various construction sites on which a number of the company's pre-engineered steel buildings are in course of erection. He will also advise agents of the latest developments in his company's range of buildings, frames, construction systems, joists and beams.

# OVERSEAS MISSIONS

## Profitable visit

THE British Hosiery and Knitwear Export Group organized a successful mission to Switzerland and Austria from January 27 to February 4. Fourteen companies took part and the range of merchandise included ladies', men's and children's knitted outerwear; lingerie and nightwear, men's underwear and ladies' and men's hosiery and knitted fabrics.

Seven of the manufacturers were making their first visit to these markets and with the help of the British Embassies in Berne and Vienna many appointments were made with leading buyers in both countries.

Firm orders placed during the mission totalled £53,000, but the estimated value of future business during the remainder of 1970 as a direct result of the mission is £360,000.

This was the seventh mission organized by the Export Group, which plans a number of similar ventures this year.

## Menswear drive in South Africa

THE LEADER of the British Menswear Guild's recent mission to South Africa, Mr. Gordon Wood, assistant managing director of Aquascutum, said on leaving that South Africa, with its vigorous and thrusting economy and its rapidly rising standard of living, offered a growing market for top quality British menswear. Mission members were pleased to be making this trip with the encouragement of the Menswear Group of South Africa, who visited Guild members in London last year.

The Guild mission is the first menswear mission to visit South Africa and the itinerary includes Johannesburg, Durban and Cape Town.

Members of the British Menswear Guild report that exports rose last year between 15 and 20 per cent.

A menswear selling mission recently returned from a visit to Tokyo and Hong Kong. Later in the year the Guild will be sending a mission to California as a part of the 'Target California' trade drive.

*A party of members of the Surrey and Hants Export Club visited the Central Office of Information recently, and were introduced to the overseas publicity services of the COI by the Assistant Controller (Overseas), Mr. E. R. Kelly. Pictured at COI headquarters in London are: Miss L. K. Anderton and Mr. R. J. Jeeves, Applied Electronics and Automation Ltd.; Mr. R. Withrington, Colt Heating and Ventilation Ltd.; Mr. R. S. Wood and Mr. M. A. Evans, EFCO Ltd.; Mr. M. R. Evison, Farnborough Technical College; Mr. A. M. Wallace and Mr. J. E. Runter, Goblin (BVC) Ltd.; Mr. S. G. L. Grigson, Metco Ltd.; Mr. B. J. Evans, Microflow Ltd.; Mr. R. J. Nichols, Morris Singer and Haskins Ltd.; Mr. R. B. Morgan, Sheer Pride Ltd.; Mr. A. D. Johnson, Unwin Bros., Ltd.; Mr. M. Irish, Vokes Ltd.; and Mr. J. C. Hollinghurst, secretary, Surrey and Hants export club.*


# Economic Trends

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# Export Orders

**Firms are invited to send in brief details of recent export orders or contracts for insertion in these columns.**

### £500,000 eastern European contracts

Hawker Siddeley Electric Export Ltd. have won contracts worth nearly £500,000 to supply Crompton Parkinson dry battery-making machinery to eastern Europe. The plant will be used for modernizing and extending existing battery-making factories in Poland, Czechoslovakia, Hungary and Rumania. These factories assemble Leclanché-type dry cells and batteries for domestic radios and torches.

The equipment will be manufactured at the South Shields works of Crompton Parkinson Ltd., a Hawker Siddeley Electric company, where the capacity for the manufacture of battery-making plant is being increased to cope with additional business.

### Control valves for Rotterdam

The Hymatic Engineering Co. Ltd., Redditch, Worcs., recently supplied all the automatic process control valves on a new desulpherization plant being built by Badger NV for Chevron Petroleum NV at Rotterdam.

Over 40 per cent of the Hymatic control valve division's output in 1969 was exported, 50 per cent going to EEC and Comecon countries.

### £3 million Nigerian contract

A contract valued at over £3 million has been awarded to a joint venture of Taylor Woodrow of Nigeria Ltd. and Dillingham Overseas Corporation (of the United States) by the Western Region Water Corporation, Nigeria, for part of the Ibadan water supply extension project, including an 18-million-gallons-a-day water-treatment plant. Work is expected to begin shortly, to be completed in two years.

### Amsterdam hotel furnishing contract

A £100,000 hotel furnishing contract in Amsterdam has been won by Catesby Integra Ltd., London, against strong competition from Continental contract furnishers. The contract is for the furnishing of the 620 guest bedrooms in the first of an international chain of tourist and business hotels to be operated by Strand Hotels Ltd., part of the J. Lyons Ltd. food products, catering and hotels group.

### Crane gear for India

Allen West (Brighton) Ltd. have received a £63,000 order for 12 sets of crane control gear from the Indian Government-owned Heavy Engineering Corporation, Dhurwa, Ranchi, India. The gear is for use on Russian-designed cranes being installed at the Bokaro steel plant.

### Magnetic tape handlers for Germany

Data Recording Instrument Co. Ltd., Staines, have secured a further contract, valued at more than £500,000, for the supply of their Type SC. 1030 magnetic tape handlers to Nixdorf Computer, Germany.

### £25,000 crane order from Yugoslavia

Herbert Morris Ltd., the Loughborough-based crane manufacturers, have won a £25,000 order from Yugoslavia for the supply and installation of a 35-ton Goliath crane, which will be used for the erection and maintenance of water pumps in a water cooling plant at Shuaiba, Kuwait. Delivery will be in October.

### Excavators for Ireland

Ruston-Bucyrus Ltd. are to supply three excavators valued at £70,000 to W. H. Bridges Ltd., Clondalkin, Co. Dublin. The order is for a 30-H hydraulic excavator and for two air-controlled heavy-duty crane/draglines. The latter machines, a 30-RB Series Two and a 38-RB Series Two, have a lifting capacity of 30 and 40 tons respectively. Equipped with 130-ft. booms, they are the first to be sold in the Republic of Ireland.

### Sales success for new excavator

Orders received by Hy-Mac Ltd. for their new 580C all-hydraulic excavator (announced to the market on February 13) have already topped £500,000.

### Exports to 19 countries

During 1969 The British Steel Piling Co. Ltd., Ipswich, exported plant, drilling equipment and piling to countries all over the world, including some in eastern Europe. The United States took between 15,000 and 20,000 tons of steel sheet piling and plant worth more than £96,000. Malaysia took both plant and drilling equipment, as well as over 1,000 tons of piling. France (nearly £141,000) and Czechoslovakia (£129,000) were the major customers for drilling equipment.

Steel sheet piling, 'H'-section bearing piles and box piles were exported to 19 countries.

### Shipments to four continents

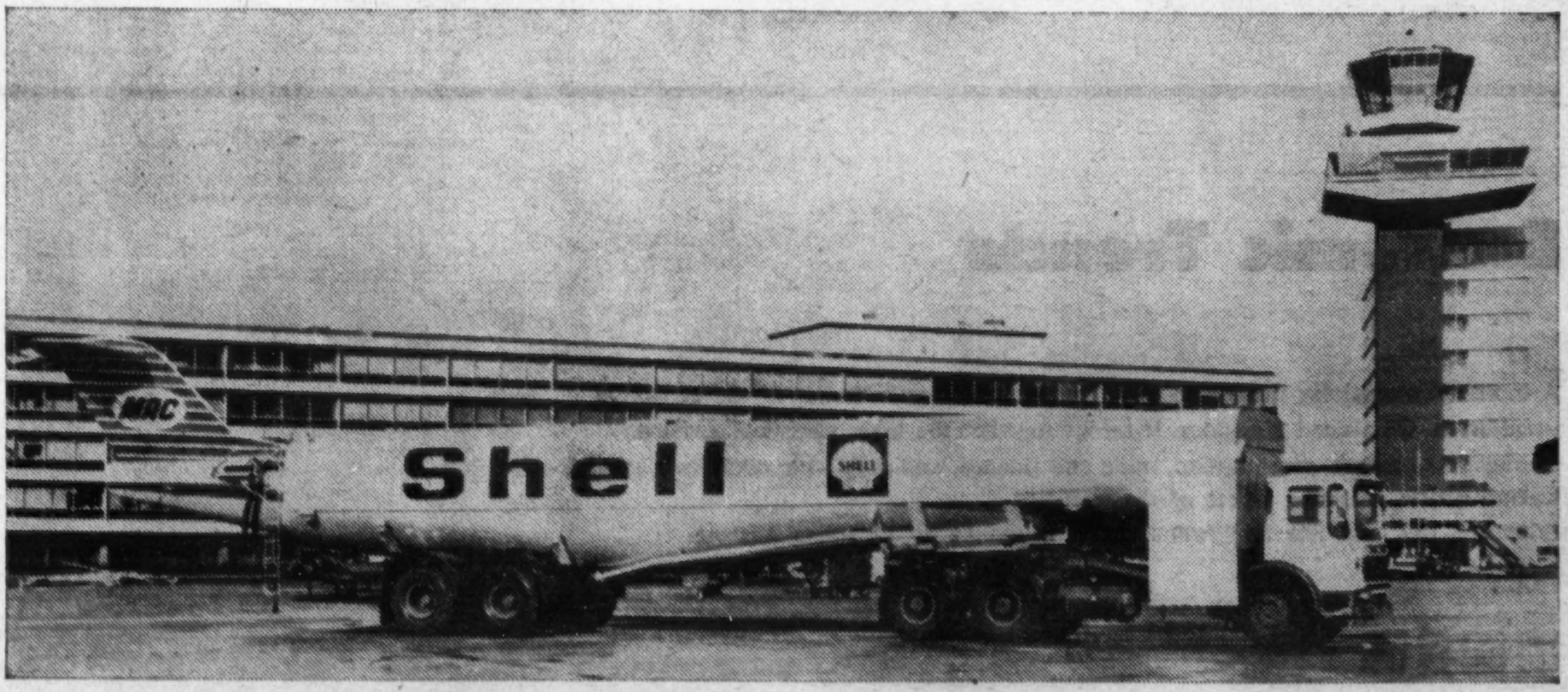
The Jaycee Group of Brighton and Eastbourne, specialists in traditional English furniture, won the Queen's Award to Industry for outstanding export achievement in 1968 and last year added to this the Gold Medallion of the International Export Association.

Group exports now account for 65 per cent of turnover and are expected to reach £1.25 million fob during the next 12 months. Shipments are made to markets spread over four continents, including Australia, Austria, Belgium, Bermuda, Canada, the Canary Islands, Denmark, Eire, France, Germany, Italy, Japan, Liechtenstein, Luxembourg, the Netherlands, Norway, South Africa, Spain, Sweden, Switzerland and the United States.

### Trouble taken – £40,000 order won

Stockdale Engineering Ltd., the Macclesfield-based filtration and separation equipment manufacturers, have been awarded a substantial order by a leading Dutch-based chemical firm. The order undoubtedly results from the trouble taken by the company's engineers in 1967 in solving a problem on the removal of suspended solids from strong hydrochloric acid at approximately 100°C.

Now Stockdale have been awarded an order for two rotary drum vacuum filters which have all the main components in titanium filters in rubber-covered mild steel construction. The total value of the contract is about £40,000.




*A massive Leyland Jumbo jet refueller, entering service at Schipol Airport, Holland, on March 5. The monster machine, 65ft. long, and 84 ton in weight, has been specially designed by British Leyland for Shell Nederland NV. British Leyland based refuellers are operated throughout the world – particularly large ones in service in Reykjavik, London, Zurich, Bangkok, Johannesburg.*

### Materials for Rio bridge project

Two contracts totalling approximately £36,000 for the supply of concrete admixtures and curing compounds to important overseas building projects have been won against international competition by Sika Ltd., Welwyn Garden City, Herts.

Over 37,000 gallons of Sika's Plastiment BV40 will be used as a plasticising agent to increase workability, improve uniformity and lessen the likelihood of other defects – such as the formation of honeycombs and faulty construction joints – occurring in structural concrete applications on the Rio-Niteroi bridge now being constructed in Rio De Janeiro, Brazil.

### £1.5 million contracts for cement clinker

The Blue Circle Group intend to export approximately 550,000 tons of cement and cement clinker in 1970. So far this year orders have been received for 400,000 tons of cement clinker. These contracts will be worth £1.5 million to the group.

Cement clinker is exported to developing countries and also to satisfy local shortages of clinker in cement-producing countries. Thus the Blue Circle group's 1970 orders include 140,000 tons for the Ivory Coast, 130,000 tons for the Canary Islands, 70,000 tons to Nigeria and 60,000 tons to South Africa. It is estimated that the demand in West Africa alone this year should approach 1 million tons.

### Parking meters for Amsterdam

Venner Ltd., New Malden, Surrey, have received another order from Amsterdam for 1,000 of their Mark II parking meters. This brings the total number of Venner meters supplied to this city over the past seven years to 4,000 – representing an increase of 33⅓ per cent – and means that more than 10,000 such meters will now be installed and operating throughout Holland.

The company will be participating in the forthcoming International Exhibition, June 29 to July 4, at Schiphol Airport, near Amsterdam. This will give Venner the opportunity to display and demonstrate their wide range of parking-gate systems and parking meters to the highly competitive Common Market, which they have been penetrating so successfully during the past year.

For the first six months of their current financial year, Venner Ltd. have received orders for over 6,000 parking meters, 60 per cent of which are for export. Such a total represents an increase of nearly 10 per cent over the previous six months' total, which was itself a record.

### Increased machine tool sales

Sales figures for 1969, released by Giddings & Lewis-Fraser Ltd., machine tool manufacturers of Arbroath, Scotland, show a 30 per cent increase on 1968 in sales of their machines in the United Kingdom and overseas. Comparing the last quarter of 1969 with the same period in 1968, sales of numerically controlled machines rose from £100,000 to £444,000, with well over half the figure consisting of export sales. Sales of Endomatic machines, for carrying out operations on both ends of a component simultaneously, almost doubled from 69 machines in 1968 to 104 machines in 1969.

### Contract estimated to value £10 million

Following a contract recently signed with Oxirane Chemie (Nederland), Air Products Nederland NV is to construct one of the largest facilities of its type in Europe. This will produce tonnage quantities of oxygen, nitrogen and process steam, to be supplied by pipeline for the manufacture of propylene oxide at a new chemical works at Rotterdam. Propylene oxide is a basic raw material in the petrochemical industry.

This industrial gas facility will be designed, engineered, and constructed by Air Products Ltd., and will be located in the heart of the vast Europort industrial complex in Rotterdam on land reclaimed from the sea. Production capacity is 1,000 tons per day of oxygen. Provision is also being made for the large-scale manufacture and storage of liquid gases for the Benelux merchant market.

Commenting on this contract, estimated to value about £10 million, Dr. D. Spencer, managing director of Air Products Ltd., New Malden, Surrey, Ltd., said: 'This plant will be the largest ever built by a United Kingdom manufacturer.'

### Aircraft sales to Mexico

Hawker Siddeley Aviation announce the sale of three Hawker Siddeley 748 Series 2A aircraft to be operated in Mexico by Servicios Aeros Especiales SA (SAESA), who have already taken over the operation of two Hawker Siddeley 748s previously operated by Aeromaya and, with the addition of the three new aircraft, will operate an extensive network of feeder routes covering almost all Mexico.

This latest order brings total sales of all types of Hawker Siddeley 748 to 217, 165 of them for export.

### Contracts from Yugoslavia

Mr. J. Lovett, contract manager for the Francis Shaw group of companies, and Mr. M. J. Stahl, sales engineer, recently returned from Yugoslavia with two contracts totalling over £170,000 signed in Zagreb with the enterprise Masino-Impex.

The contracts cover Bag-O-Matic tyre vulcanizing presses, tyre-bead and tread-making machinery to be installed in the Sava factory at Kranj.

### Overseas sales up 14.8 per cent

Direct export sales of the Sunderland-based James A. Jobling glassware group rose by 14.8 per cent during 1969.

Mr. Brian H. Turpin, group managing director, reports that increases were spread across all four product divisions – tableware and ovenware (32.2 per cent up), materials and components for industrial use (23.7 per cent up), chemical and process plant (9.5 per cent up) and laboratory ware and instrumentation (6 per cent up).

### Seat belt contract from France

A contract worth nearly £500,000 has been awarded to Kangol Magnet Ltd. for the supply of a new type of seat belt for the entire Simca range of cars. It is believed this is the largest single order from France placed with a British seat belt manufacturer.

### Record turnover

Total sales of James Neill & Co. (Sheffield) Ltd., manufacturers of 'Eclipse' tools, hit a new record in 1969. Home sales were up by 3 per cent and exports showed a 14½ per cent increase. The upward trend has continued in the first few weeks of 1970. Total turnover for the full year was just below £5 million.

### Power for locomotives

A further 10 English Electric 12CSVT diesel engines, valued at approximately £250,000, will power 10 main-line locomotives to be produced for the Queensland Government Railways at the Rocklea Works of GEC-English Electric Pty. Ltd., in Australia.

Having an output of 1,950 bhp, the engines will be manufactured by Ruston Paxman Diesels Ltd. at Newton-le-Willows, Lancs. Delivery is scheduled to begin during the second half of 1970.

Since 1952, over 120 diesel-electric locomotives powered by engines from the English Electric RK/V series have served the Queensland Government Railways.

### Record sales of petrochemical products

A £1 million increase in exports was achieved in 1969 by ICI's heavy organic chemicals division, who make the company's petrochemical products. Total overseas sales during the year reached a new record of over £16 million.

As in earlier years the Common Market was the largest customer, taking almost 50 per cent of total exports. The four major individual markets were Holland France, Belgium and the United States.

### Shipments up 30 per cent

Izal (Overseas) Ltd., the export sales company within the Izal organization, last year increased overseas sales turnover to a record £750,000. Shipments to customers abroad during 1969 showed a 30 per cent increase over the previous year.

Mr. J. R. Morris, managing director of Izal Overseas, reports: 'The biggest strides were made in the highly competitive European and African markets.'

Izal manufacture a wide range of household disinfectants, toilet tissues, floor maintenance and mechanical floor maintenance machinery products at its Thorncliffe, Sheffield, manufacturing plants.

### £250,000 radiotelephones for Nigeria

Labgear Ltd., a member of the Pye of Cambridge Group, announce the receipt of two contracts from the Nigerian Government for the supply of 400 single side-band portable man-pack radiotelephones. The contracts, valued at £250,000, will provide mobile radio equipment capable of communicating up to about 100 miles.

### Paper and board sales in 1969

In 1969 British exports of paper and board earned £49 million – an increase of nearly £9 million on the previous year – reports the British Paper and Board Makers' Association. The exports consisted chiefly of high-value and speciality grades and probably amounted to one-tenth of the industry's total turnover. Exports to Common Market countries earned £12 million, an increase of nearly £3 million. Top customers last year were South Africa, which took £4.4 million worth of paper and board, Eire with £4.2 million, and Australia with £3.9 million.

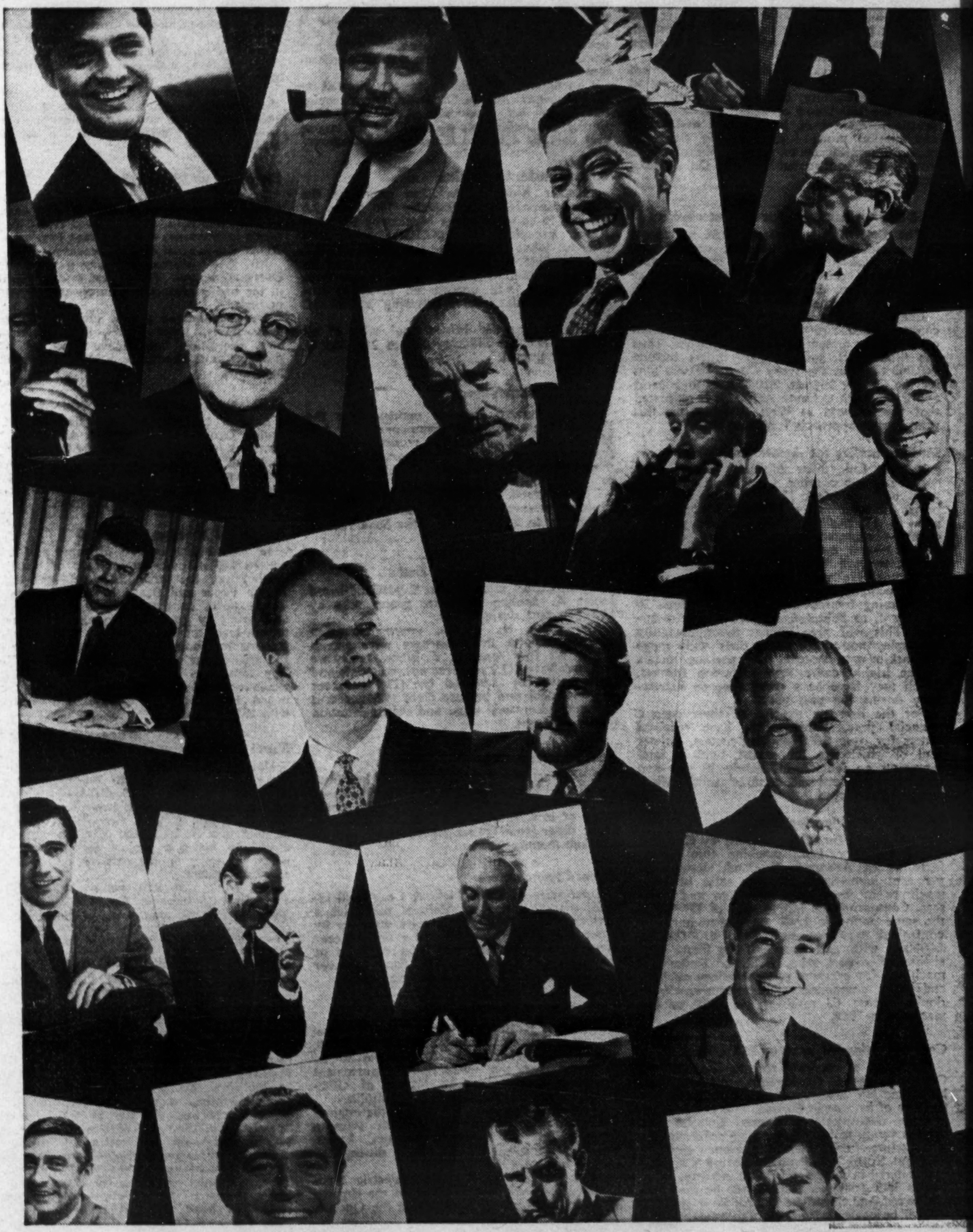
### Saudi Arabian contract

Hawker Siddeley Electric Export Ltd. have received a £60,000 order for supplying 60 medium-voltage electrical distribution switchboards to the Riyadh Electric Company and Suburbs, Saudi Arabia. The switchboards will be used in a further stage of the underground electricity network project for Riyadh City which is replacing the existing overhead distribution system.

The equipment will be made by Brush Electrical Engineering Co. Ltd., a Hawker Siddeley Electric company, at their Loughborough works.

### Healthy order book in 75th year

Evershed & Vignoles Ltd., Chiswick, a member of the George Kent Group, enters its 75th year of operation with one of the healthiest export books in the company's history. New orders received in February by the Instrument division for Bridge 'Megger' testers (used in cable fault location) include 20 for Malaya, 37 for Kuwait and 84 for Australia. In addition, the Malayan Posts and Telecommunications department has ordered 20 earth testers and Kuwait 75 BM6 battery-operated insulation and continuity testers.

Other orders received during this period include 20 miniature recorders for the New Zealand electricity authority, 10 Series 1 'Megger' insulation testers for Poland and 29 Series 1 testers for Czechoslovakia. Export orders in hand for instrument division at present exceed 52 per cent of production.

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# Tariff, Customs and Import Regulations in overseas countries

## REGISTERED TRADE MARK (RTM) GOODS IN OVERSEAS TARIFF LIST.

*The lists of Tariff, Customs and Import Regulations changes in overseas countries published in this section of the* Journal *sometimes contain words which are registered trade marks in the United Kingdom. So far as is practicable, all lists of goods are checked before publication from this point of view.*

*Items which fall into this category will now be preceded by the letters 'r t m'. Readers of the* Journal *should note that this prefix signifies that the words are registered as trade marks in the United Kingdom, but that in the present context they are assumed to refer generally to products of the description stated in brackets.*

*While every attempt will be made to ensure that the scrutiny is complete, the lists may contain other words which are registered as trade marks in the United Kingdom or in other countries but which it has not been possible to identify.*

## EUROPEAN COMMUNITIES

### *Common Agricultural Policy*

THE TEXTS of the following Regulations and Decision which affect the various agricultural sectors in the EEC have been published in the *Journal Officiel des Communautés Européennes.*

The French text of the Regulations and Decision may be seen on application to the Export Services Branch, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 7174).

**OILS, FATS AND OILSEEDS**

**Regulation (CEE) No. 383/70** fixes the production refund for olive oil used in the manufacture of preserved fish and vegetables (*Journal Officiel* No. L48 dated February 28, 1970).

**CATTLEMEAT, BEEF AND VEAL**

**Regulation (CEE) No. 392/70** relates to the date for applying the definitions of bovine carcasses (*Journal Officiel* No. L49 dated March 3, 1970).

**Regulation (CEE) No. 393/70** modifies **Regulation (CEE) No. 318/70** in so far as it concerns the refund applicable to certain products in the cattlemeat sector (*Journal Officiel* No. L49 dated March 3, 1970).

**SUGAR**

**Regulation (CEE) No. 394/70** concerns the methods of application for granting export refunds for sugar (*Journal Officiel* No. L50 dated March 4, 1970).

**Regulation (CEE) No. 413/70** fixes the intervention prices for unrefined sugar beet for the 1969/1970 Marketing Year (*Journal Officiel* No. L52 dated March 6, 1970).

**CITRUS FRUIT**

**Regulation (CEE) No. 400/70** repeals **Regulation (CEE) No. 337/70** applying the Common Customs Tariff to imports of certain varieties of sweet oranges originating in Morocco (*Journal Officiel* No. L50 dated March 4, 1970).

**Regulation (CEE) No. 412/70** concerns the recourse to certain specified uses for oranges which have been subject to intervention measures (*Journal Officiel* No. L51 dated March 5, 1970).

**MILK AND MILK PRODUCTS**

**Regulation (CEE) No. 433/70** modifies **Regulations (CEE) Nos. 1489/69** and **1659/69** relating to the sale of butter from public stock for processing (*Journal Officiel* No. L53 dated March 7, 1970).

**Regulation (CEE) No. 414/70** establishes the general regulations relating to measures intended to increase the use of butter by certain categories of consumers (*Journal Officiel* No. L52 dated March 6, 1970).

**CEREALS**

**Regulation (CEE) No. 434/70** modifies **Regulation (CEE) No. 473/67** in so far as it concerns the period of validity of export certificates for certain products processed from maize (*Journal Officiel* No. L53 dated March 7, 1970).

**Decision No. 70/174/CEE** authorizes France to allow until April 30, 1970 the marketing of a variety of durum wheat seeds and of a variety of 'brassicole' barley seeds subject to less stringent requirements than those stipulated in **Directive 66/402/CEE** (*Journal Officiel* No. L51 dated March 5, 1970).

### *Suspension of duties in the common tariff*

THE *Journal Officiel des Communautés Européennes* No. L50 dated March 4, 1970 contained the text of **Regulation (CEE) No. 403/70** temporarily suspending the Common Customs Tariff applicable to spirits of turpentine (Common Customs Tariff No. 38.07 A) and rosins including 'resinous pitch' (Common Customs Tariff No. 38.08 A) at a rate of 3 per cent and 3.5 per cent respectively for the period March 9, 1970 to December 31, 1970.

The French text of this Regulation may be seen on application to the Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 7174).

## SPAIN

### *Import duty suspension: chick peas and beans*

NOTICE was given in the *Board of Trade Journal* of December 24, 1969 (page 1735) of the suspension of Spanish import duty on chick peas and beans (Tariff heading 07-05 B1 and B2).

The Spanish *State Gazette* of March 6 announced a further extension until May 31, 1970.

Inquiries about this notice should be addressed to Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 460/462).

## FRANCE

### Liberalization of imports

IN ACCORDANCE with EEC Regulations 2513/69 the *French Journal Officiel* of March 1 announced the liberalization, as from March 1, of certain goods previously subject to quantitative restrictions when imported into France from all countries.

The following items should be deleted from the list of products for which import restrictions exist, published in the *Board of Trade Journal* of May 6, 1966, pages 1028-31, List I, which applies to non-liberalized goods from ex OEEC countries:

| Tariff No. | | Description |
|---|---|---|
| Ex 07.01 | | Vegetables, fresh or chilled: |
| | B | Cabbage |
| | C | Spinach |
| | ex D | Salad vegetables, including endives and chicory: |
| | | ex I Cabbage lettuce: |
| | | imported from June 16 to November 14 |
| | | ex II Other: |
| | | Lettuce, endive and escarole |
| | | imported from June 16 to November 14 |
| | | Other |
| | ex F | Leguminous vegetables, shelled or unshelled: |
| | | ex II Beans |
| | | shelled or unshelled, imported from October 1 to May 31 |
| | | ex III Other |
| | G | Carrots, turnips, salad beetroot, salsify, celeriac, radishes and other similar edible roots |
| | H | Onions, shallots and garlic |
| | ex L | Artichokes, imported from July 1 to March 14 |
| | ex M | Tomatoes, imported from January 1 to May 14 |
| | O | Capers |
| | P | Cucumbers and gherkins |
| | Q | Mushrooms and truffles |
| 08.03 | | Figs, fresh or dried |
| Ex 08.04 | | Grapes, fresh or dried: |
| | ex A | Fresh: |
| | | ex I Dessert grapes imported from February 1 to June 30 |
| | | II Other |
| | B | Dried |
| 08.06 | | Apples, pears and quinces, fresh |
| 08.07 | | Stone fruit, fresh: |
| | ex A | Apricots, imported from August 1 to June 4 |
| | B | Peaches, including clingstones and nectarines |
| | D | Plums |
| | E | Other |
| 08.08 | | Berries, fresh |
| Ex 08.09 | | Other fruits, fresh: |
| | | Melons, imported from October 16 to June 30 |
| | | Other fruits, fresh |

**Technical visa**

The following item now requires a technical visa and completes an amended list of goods subject to technical visas published in the French *Journal Officiel* of December 6, 1969:

| Tariff No. | Description | Statement of imports to |
|---|---|---|
| 07.01 ex H | Onions for planting out of a diameter not exceeding 20 mm. | Ministere de l'Agriculture |

Inquiries relating to this notice should be addressed to General Export Services Division, Board of Trade, Room E.59, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext 403/408, 288) where the full French text of this notice and the list of goods subject to technical visa procedure may be seen.

### Import regulations

THE FRENCH *Journal Officiel* of February 14 announced that, following Decree No. 70.127 of February 6 of the Ministry of Health, importation of all products containing diacetylmorphine (heroin) or its salts are forbidden, as are also the sale of these products in France. Derogations will be granted by the French Ministry of Health and Social Security for certain permitted derivatives or for research work.

Inquiries relating to this notice should be addressed to Export Services Division, Board of Trade, Export Data Branch, Tariff Section, Room E59, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 423/408/288), where the full French text may be seen.

## FEDERAL REPUBLIC OF GERMANY

### Textile Marking Law

AN ANNOUNCEMENT at page 1634 of the *Board of Trade Journal* of December 17, 1969, drew attention to a proposal which was to be introduced in the Federal German Parliament to delay the effective date of the Textile Marking Law from September 1, 1970, to September 1, 1971.

Confirmation that the new effective date has been accepted by the Federal Parliament has now been published in the *Federal Law Gazette*. (Bundesgazetsblatt Part I, No. 11, of February 13, 1970).

British exporters to Germany who require more information can obtain an English translation of the Law from Tariff Section, Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 466, 467, 482, 7069 and 7068).

## KUWAIT

### New foodstuffs regulations and ban on cyclamates

THE FOLLOWING is an extract from the Kuwait *Official Gazette* No. 763 of February 1, 1970: 'Ministerial Order No. 4/1970.

The Ministry of Commerce and Industry hereby orders as follows:

1. The importation of foodstuffs containing any type of sodium cyclamate compound is prohibited.

2. Importers of foodstuffs should (a) submit a certificate in triplicate from the producing company that the imported goods are free from any form of sodium cyclamate. A copy of the certificate should be presented to the Ministery of Public Health. (b) a statement from the producing company of the chemical composition of the imported goods and the quality and quantity of the artificial substances included in such goods: provided that such statement shall be attested by the government authorities in the


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producing country and that the copy of the statement shall be presented to the Ministry of Public Health.

3. This order shall come into operation with effect from today's date.'

In the United Kingdom the required certificates may be obtained from Public Analysts (addresses available from Local Authorities) and the Analysts' competance may be certified by the Ministry of Agriculture, Fisheries and Food, Great Westminster House, Horseferry Road, London, S.W.1.

No further information is available, but inquiries should be addressed to Tariff Section, Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext, 420 or 475).

## IRAQ

### *Plans for home and foreign trade*

ACCORDING TO A report in the *Baghdad Observer* of February 25, the Revolutionary Command Council has resolved to pass 'The Domestic and Foreign Trade Regulation Law, No. 20 of 1970'. Under this law, a Board will be established, under the chairmanship of the President of the Republic of Iraq, to organize and implement plans for home and foreign trade including: (a) Shaping import-export policy, (b) price regulation, (c) direction of labour, (d) taking over goods, factories and shops if this is considered to be in the public interest, (e) penalties for infringing price regulations or trafficking in export or import licences.

A copy of the law, together with a translation, will be available in due course.

Inquiries about this notice should be addressed to Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext.3454).

## ABU DHABI

### *Cyclamates expected to be prohibited*

THE USE of cyclamates in Abu Dhabi is expected to be prohibited from about March 15, 1970. Further details will soon be available from Tariff Section, Export Services Branch, Board of Trade, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 420 or 475).

## ALGERIA, MOROCCO AND TUNISIA

***Exporters interested in Algeria, Morocco and Tunisia are reminded that French is the foreign language most widely used in business and official circles in these countries. It is, therefore, essential that any literature or correspondence for local firms should be in French. Similarly, quotations of weights and measures in the metric system and of prices in local currency are also an important factor in attracting the interest of potential importers.***

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## Loading and discharge of oil in port

THE MINISTRY of Communications in Israel has issued regulations for the loading and discharge of oil in port. All inquiries should be addressed to Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 420/454).

## New regulations for salted fish imports

IMPORTS of salted fish into Israel covered by Customs Item 03.02-2010, 2011 and 2019, containing sugar or spices in any quantity will require an import permit from January 19. The amount of sugar and spices that is contained in the fish must be shown on every application for a permit.

## Goods which may be imported under permit

THE FOLLOWING items may be imported into Israel freely under permit from the Ministry of Commerce and Industry.

| Description of Goods | Customs Item | Duty |
|---|---|---|
| **Israel** | | |
| Cast or rolled glass, not less than 4 mm. thick, with a smooth surface on both sides, not coated, not stained or coloured in any way, completely transparent of a thickness of not more than 8·5 mm. | 70.04.2010<br>2011 | 40 per cent but not less than 1·00 p.kg. |
| Other | 2019 | 25 per cent |
| Drawn or blown glasses, not less than 4 mm. thick completely transparent, with a smooth surface on both sides, not coloured, stained or coated in any way. Of a thickness of not more than 8·5 mm. | 70.05.1010<br>1011 | 40 per cent but not less than 11.1·00 p.kg. |
| Other | 1019 | 25 per cent |

Inquiries about this notice should be addressed to Export Services Branch, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 420/475).

## Liberalization of imports

THE FOLLOWING amendments have been made to the supplement to the Free Imports Order 1968 of goods which can be imported into Israel without a special permit.

| Item | |
|---|---|
| 03.02-2010 | Replace by 'Herrings in brine, except those containing traces of sugar and spices.' |
| | In the 'Special Conditions' column: |
| 03.02 | *Insert* 'in barrels of 25 kg. or more.' |
| 25.03 | *Insert* 'in packings weighing 100 kg. net or more.' |
| 84.12 | In paragraph 3 replace 'England' by 'United States.' |
| 85.20-2020 | Replace 'T.I.20' by 'T.I.520.' |
| 90.24-2030 | Replace 'T.I.1555' by 'B.S.1555.' |
| 25.11<br>28.19-5000 | These items are repealed. |
| 28.38-9900 | 'Barium' to be deleted. |
| 51.01-1000 | Replace 'excluding polyester and acrylene yarns' by 'excluding acrylene yarns.' |
| 62.03-1000 | Replace by '62.03 – Sacks and bags of a kind used for the packing of goods.' |

## Import regulations for vegetable and horticultural seeds

THE MINISTER of Agriculture in Israel has announced that in Section 4(a) of the Seeds Regulations (Import Control) 1965, sub-section 2 shall be followed by: '(3) Whatever is stated in sub-section (2) shall not apply to a consignment of vegetable seeds of less than 25 kg. per variety, or to a consignment of horticultural seeds of less than 250 kg. per variety.'

Inquiries from British exporters about this notice should be addressed to Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 420/475).

## Further customs tariff amendments

THE ATTENTION of British exporters to Israel is also drawn to the following. During the period to December 31, 1971, amendments to the Israel Customs Tariff have been made affecting the following commodities: monochrome; various nuts; sausages; meat pastes; preserved liver or tongue; prepared or preserved fish including caviare and its substitutes.

Amendments have also been made to items: 90.10-2090; 21.05; 22.03; 24.02; 87.02; 90.07. Item 818-2150 is to be followed by '2520 – Meat or Fish, prepared or preserved kg. 4·00.'

Some changes have been made to the rate of Purchase Tax on several items including motor vehicles, and to the rate of excise duties on alcoholic liquors.

Inquiries about these notices from British exporters should be addressed to Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 420/475).

# INDIA

## Repatriation of foreign capital

THE RESERVE BANK of India has issued the following Press Note dated February 20, 1970:

**'Repatriation of Foreign Capital**

'At present foreign companies functioning in India enter into contracts for the sale of their assets in India and thereafter approach the Bank for permission to remit the sale proceeds. This procedure often creates difficulties. Accordingly, foreign companies proposing to sell their assets in India are hereby advised to obtain the prior approval of the Reserve Bank before effecting the sale, if they are likely to seek significant repatriation (of more than Rs 10 Lakhs, i.e., £55,556) in respect of sale proceeds. Such proposals will be considered from the point of view of the reasonableness of the price and the suitability of the buyer in the light of his experience in the line and his capacity to manage the assets and to maintain the productive efficiency of the assets and their export potential, if any. Approved sales will qualify for the repatriation of the remittable part of the sale proceeds subject to suitable instalments.'

Any inquiries relating to this notice should be addressed to Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2277).

# REPUBLIC OF SOUTH AFRICA

## Customs tariff change—telescopes

UNDER SOUTH AFRICAN *Government Gazette* Notice No. R277 of February 27, the provision for telescopes is amended to make it clear that telescopic sights for firearms and periscopic telescopes are also regarded as telescopes of a kind designed to form parts of instruments machinery or apparatus (Item 90.13.40).

## Customs tariff application on woven fabrics of cellulosic fibres

CUSTOMS TARIFF application List No. 505, published in the South African *Government Gazette* of February 6, contained an application to the Board of Trade and Industries for increase in duty on **Woven fabrics of cellulosic fibres (continuous or discontinuous).** The fabrics are those containing 30 per cent or more synthetic fibres, of a weight per square yard of 4·2 ounces or more and of a value for duty purposes per square yard exceeding 30 cents from the existing duties to the following rates of duty: (A) of a value for duty purposes per square yard not exceeding 52 cents. – General duty: 80 per cent *ad valorem* less 7 cents per square yard. (B) Other – General duty: 25 per cent *ad valorem* or 35 cents per square yard. MFN duty: 20 per cent *ad valorem* or 30 cents per square yard.

Those British trade organizations thought to be interested in the application are being informed. Any British firm affected which wishes to make representation to the South African Board of Trade and In-

dustries and belongs to a trade organization should therefore, first contact its own trade association.

If any firm proposes to make independent representations to the South African authorities and requires further information concerning the application, it should address inquiries to the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2274).

## SENEGAL

### *New mercurial values: all previous now cancelled*

THE SENEGAL *Journal Officiel* of January 24, 1970, published a table of new mercurial values applicable to certain imports. All previous values are cancelled.

| Senegal Tariff No. | Description | Unit | Mercurial Value Francs CFA |
|---|---|---|---|
| 19 | Biscuits: | | |
| 18 C 1 | Biscuits without cocoa, ships biscuits containing 15% or less sugar. | 100 kg. Net | 6,000 |
| 20 | Preparation of vegetables, kitchen herbs, | | |
| 08 C 1 | fruit, other plants or parts of plants: | | |
| 02 A 1 | Tomato and tomato puree | Kg ½ gross | 80 |
| 25 | Salts, sulphur, earths and store plastering materials, lime and cement: | | |
| 23 | Portland cement, similar ordinary hydraulic cement (excluding special cements: ciment fondu, slag, cement, super sulphate cement, etc., clinkers and coloured cement | 100 k | 400 |
| 27 | Mineral fuels, mineral oils and products of their distillation; bituminous substances; animal waxes: | | |
| 10 A | Light oils and the like | | |
| | Aviation spirit 100 octane or more in bulk | T. Net | 14,000 |
| | Aviation spirit 100 octanes or drums | T. | 15,500 |
| | Aviation spirit 90 octanes in bulk | T. Net | 13,000 |
| | Aviation spirit 90 octanes or drums | T. | 14,500 |
| 10 A 1 b | Petroleum spirit – other in bulk | T. Net | 8,500 |
| | Petroleum spirit – other or drums | T. | 10,000 |
| 10 A 3 | Refined oils (kerosene) in bulk | T. Net | 7,300 |
| | Refined oils (kerosene) or drums | T. | 8,800 |
| | Refined oils (kerosene) in casks and copper containers | T. | 9,500 |
| 10 B | Heavy oils and the like: | | |
| 10 B 1 | Gas – oil | T. Net | 7,000 |
| 10 B 2 and B 3 | Domestic fuel oil and light fuel oil | T. Net | 6,500 |
| 10 B 4 | Heavy fuel oil | — | 4,000 |
| 34 | Soap, organic surface – active agents, washing preparations, lubricating preparations, candles and similar articles, modelling pastes and dental waxes: | | |
| 01 A | Ordinary soap | K. Net | 100 |

**Remarks:**
The mercurial is not applicable to goods whose c.i.f. value is more than 100 fr. per kg. Net

| | | | |
|---|---|---|---|
| 51 | Material of synthetic or artificial fibres continuous – including material of monofil or wool or similar 51.01-51.02 | | |
| 04 A | Material of synthetic textile fibres continuous | K. Net | 1,400 |
| 04 B | Material of artificial textile fibres continuous | K. Net | 1,000 |
| 55 | Cotton: | | |
| 01 | Cotton not carded or combed | T. Net | 50,000 |
| 03 | Cotton waste (inclyding pulled or garnetted rags) | T. Net | 40,000 |
| | Other cotton materials: | | |
| | Containing 85% or more by weight of cotton, plain, serge, twill or satin woven: | | |
| 09 A 1 b | Scoured, dyed cream or bleached | T. Net | 650 |
| 09 A 1 c 1 | Dyed of a weight of less tha n 500 g per sq. metre | T. Net | 750 |
| 09 A 1 d | Manufactured from threads of varying colours | — | 650 |
| 09 A 1 e | Printed or similar with motifs applied by painting or cropping flocks or other (a): | | |
| | Fabrics up tl 92 cm (36 in.) width other than Fancy, Java, or Wax prints | — | 750 |
| | Fabrics from 92-100 cm. width other than Fancy, fancy or Wax prints | — | 850 |
| | Fabrics of more than 100 cm. width than Fancy, Java or Wax prints | — | 1,100 |
| | Wax prints of all widths | — | 1,300 |
| | Other: | | |
| 09 A 2 d | Manufactured with threads of varying colours | K. Net | 750 |
| 09 A 2 d | Prints or similar (with motifs applied by painting, or the application of cropping flock or otherwise | — | 750 |
| 09 B | Other cotton fabrics: Containing less than 85% by weight of cotton, plain, serge, twill or satin: | | |
| 0-9 B 1 b | Scoured, dyed cream or bleached | — | 650 |
| 09 B 1 c | Dyed weighing less than 500 gr. per sq. metre | — | 750 |
| 0-9 B 1 d | Manufactured with threads of varying colours | — | 650 |
| 09 B 1 e | Printed or similar with motifs applied by painting, cropping flocks, or other (a): | | |
| | Fabrics up to 92 cm. (36 in.) width, other than Fancy, Java or Wax prints | — | 750 |
| | Fabrics from 92 cm. to 100 cm. width other than Fancy, Javas or Wax prints | — | 850 |
| | Fabrics of more than 100 cm. width other than Fancy, Java or Wax prints | — | 1,100 |
| | Fancy and Java prints of all widths | — | 1,300 |
| | Wax prints of all widths | — | 1,300 |
| | Other: | | |
| 09- B 2 d | Manufactured with threads of varying colours | — | 750 |
| 0-9 B 2 e | Printed or similar (with motifs applied by painting or cropping flock or otherwise) | — | 750 |

(†) The words Fancy, Java and Wax print should be included in the Customs declaration

| | | | |
|---|---|---|---|
| 56 | Fabrics of synthetic or artificial discontinuous fibres: | | |
| 07 A | Fabrics of synthetic textile fibres | K. Net | 1,400 |
| 07 B | Fabrics of artificial textile fibres: | | |
| | Of uniform colour | — | 700 |
| | Printed and up to 92 cm. width | — | 700 |
| | Printed and more than 92 cm. width | — | 850 |
| | Weighing more than 450 g per sq. metre | — | 450 |
| 59 | Wadding and felt, twine, cordage and ropes, special fabrics, impregnated or coated fabrics, textile articles suitable for industrial use: | | |
| 04 B | Used cordage | K. Net | 250 |
| 61 | Clothing and clothing accessories in felt fabrics or unwoven fabrics: | | |
| 06 | Length of fabric for pagne cloths, with loose fibres that form a fringe on cutting | K. Net | 700 |

**Remarks;**
The mercurial values are not applicable where the c.i.f. value is more than the mercurial value

| | | | |
|---|---|---|---|
| 62 | Other articles made up from fabrics: | | |
| 03 B | Sacks (single or double) imported filled with sugar | A piece | 20 |
| 03 B | Jute sacks filled with salt | K. Net | 100 |
| 03 B | Sacks (single or double) filled with products other than sugar, salt or rice | — | 30 |
| 63-01 A, 01 B | Secondhand clothes | K. Gross | 1,000 |
| 64 | Shoes, gaiters, similar articles, including the following: | | |
| | Turkish slippers for men | A pair | 500 |
| | Embroidered turkish slippers, without heels, for women | — | 500 |
| | Other turkish slippers, for women | — | 1,000 |
| 73 | Iron, cast iron, steel: | | |
| 23 | Iron drums full of heavy oil products (27.10 B) | 100 K. Net | 3,000 |

Inquiries about this notice should be addressed to Export Services Branch, Board of Trade, Room E59, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 408, 423 and 288).

## GHANA

### *Imports — licensing and financing regulations*

IT HAS BEEN learned from the Ghana Trade Commissioner in London that the Minister of Trade and Industries has announced that with immediate effect from March 12, 1970, the following items are to be placed on Open General Licence without any commitment forms: Milk, sugar, rice, meat and meat preparations (e.g., corned beef, etc.), fish and fish preparations (e.g., sardines, pilchards, etc.), yeast and wheat grain. Payment at sight terms will operate for a trial period of six months. Further details will be published as soon as they are received.

## AUSTRALIA

### *Tariff Board Inquiries: programme of public hearings*

**Industrial chemicals and synthetic resins – Review**
**Ethylene oxide derivatives**
**Synthetic rubber latex**
**Hydrogen peroxide (Dumping and Subsidies Act)**
**Nitrogenous fertilizers (Dumping and Subsidies Act)**

THE BRITISH High Commission in Canberra has stated that the Australian Tariff Board will receive further evidence on all products covered by the above references at a final public hearing which will be held on April 13, 1970 in Canberra and is expected to continue for several days.

All parties wishing to submit evidence on any of these subjects and those who have not yet presented, at a public inquiry, evidence

(*Continued on page* 792)

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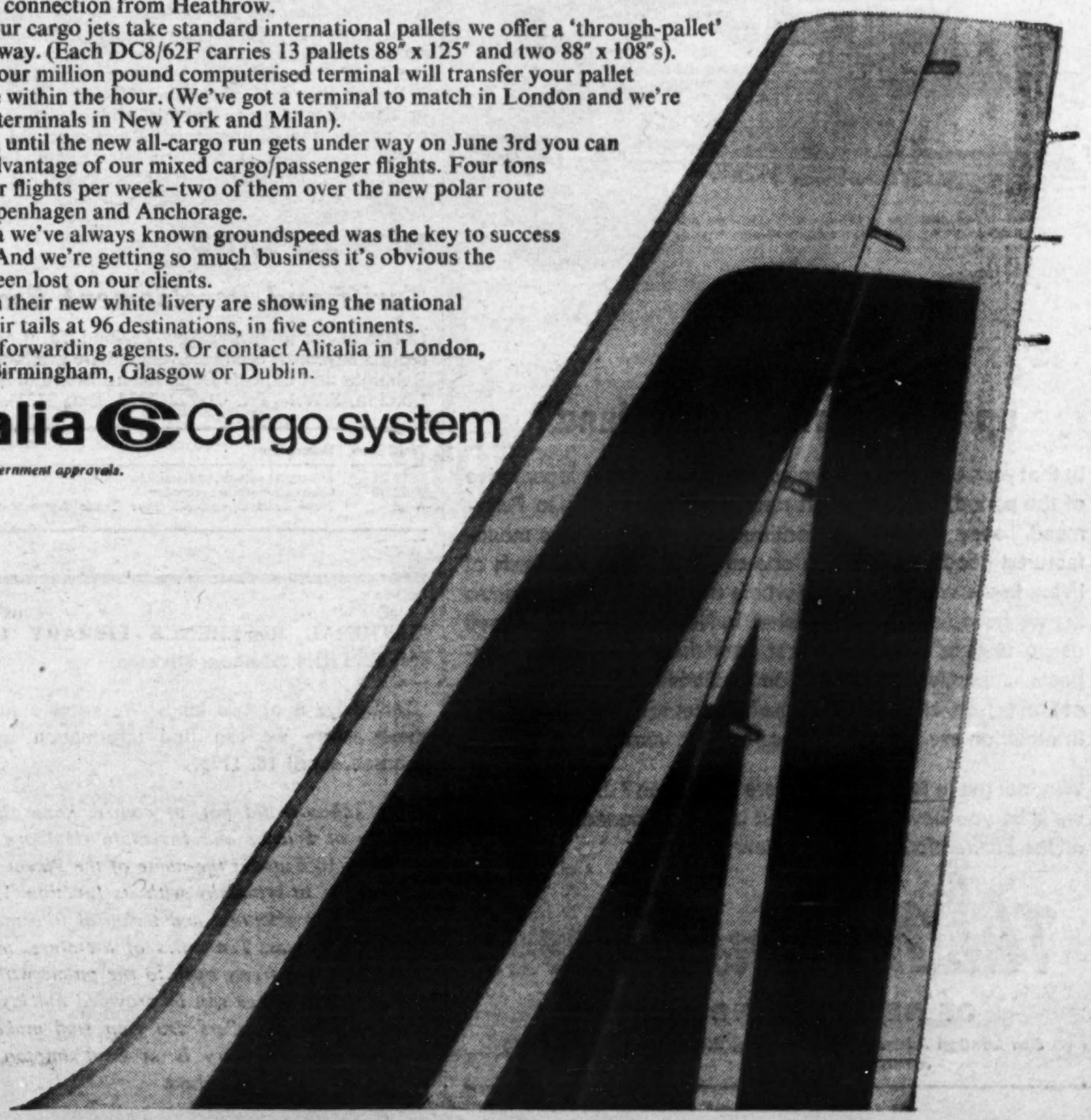

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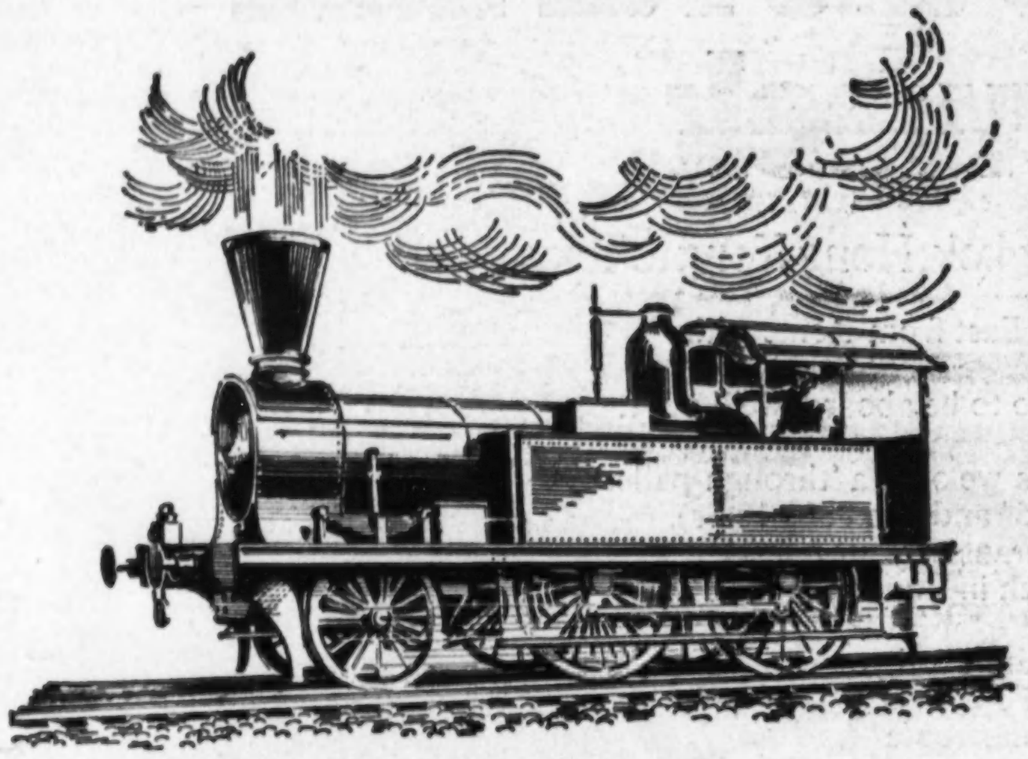
became New Zealand's first railway
locomotive in 1863



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AUSTRALIA, *continued*

requested by the Tariff Board at earlier hearings should therefore make arrangements to attend. They are also asked to notify the Tariff Board as soon as possible of their intention to submit evidence.

Eight copies of all evidence which intending witnesses propose to present at the hearing should reach the Tariff Board by March 27, addressed to: Secretary, Tariff Board, PO Box 80, Canberra, ACT.

Inquiries about this notice should be addressed to the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2319).

## *Tariff Board Inquiry on glass and glassware*

THE AUSTRALIAN Minister for Trade and Industry has referred to the Tariff Board for inquiry and report the question whether assistance should be accorded the production of glass and glassware (Tariff items, 70.01, 70.02, 70.03, 70.09, 70.10, 70.12 to 70.19 and 70.21). This reference is of departmental origin.

Details of the tariff items under which the above-mentioned goods are dutiable, may be obtained from Export Services Branch, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 468).

This matter has been reported by the British High Commission at Canberra, which has been asked by the Australian authorities to notify them at the earliest possible date if any United Kingdom interests propose to tender evidence. In accordance with normal procedure, notification in this instance has to be made to the Australian authorities not later than April 7.

Before this date, therefore, United Kingdom Trade Associations or firms intending to submit evidence to the Tariff Board should so advise the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2319), quoting reference No. CRE 583/70.

## NEW ZEALAND

## *Tariff and Development Board reports*

COPIES of the following New Zealand Tariff and Development Board reports have now been received and are available from the Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2321).

| Tariff Item | Description |
|---|---|
| 82.04.01 | Industrial soft-faced hammers |
| 90.23.00 | Chart temperature recorders |
| — | New Zealand/Australia Free Trade Agreement (Elimination of Margins) |

## NATIONAL REFERENCE LIBRARY OF SCIENCE AND INVENTION (Holborn Division)

'Knowledge is of two kinds. We know a subject ourselves, or we know where we can find information upon it,' – Dr. Samuel Johnson, April 18, 1775.

*Dr. Johnson did not, of course, know the National Reference Library of Science and Invention (Holborn Division), which was set up in* 1855 *under the name of the Patent Office Library, but he was clearly in sympathy with its function.* 138,000 *people in* 1969 *came to find scientific and technical information available on the Library's shelves. Ten miles of literature, including* 9,000 *current periodicals, are freely open to the public without formality. Photocopies at* 9d. *a page can be provided quickly by post and immediately to personal callers. Do your staff make enough use of these facilities? The Library is at Southampton Buildings, Chancery* 10 *a.m. to* 1 *p.m. Saturdays.*

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## ECUADOR

### *Amendment of prior deposit rates on imports*

THE CENTRAL Bank of Ecuador has announced that as from March 5, 1970, prior deposits on imports will be at the following rates:

| Payment terms | 0 to 90 days | 91 to 180 days | 181 to 270 days | 271 to 365 days | 1 Year to 2 years | Over 2 years and up to 5 years | Over 5 years |
|---|---|---|---|---|---|---|---|
| List I | Per cent 35 | Per cent 31·50 | Per cent 26·25 | Per cent 17·50 | Per cent 8·75 | Per cent 3·50 | — |
| List II | Per cent | Per cent | Per cent | Per cent | Per cent | Per cent | |
| (a) | 70 | 63 | 52·50 | 35 | 17·50 | 7 | — |
| (b) | 130 | 117 | 97·50 | 65 | 32·50 | 13 | — |
| (c) | 170 | 153 | 127·50 | 85 | 42·50 | 17 | — |
| (d) | 250 | 225 | 187·50 | 125 | 62·50 | 25 | — |

## BRAZIL

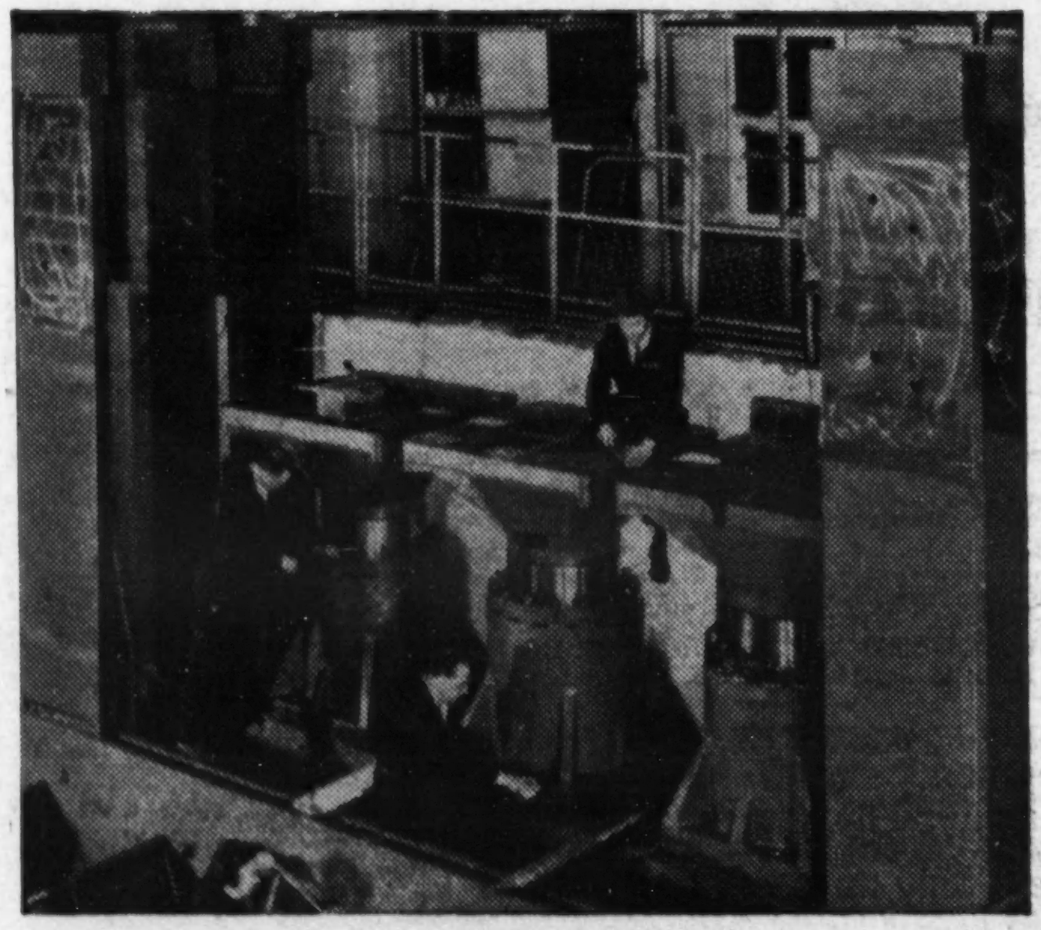
### *Foreign Trade Resolutions*

RESOLUTION No. 52 of the National Council of Foreign Trade dated October 23, 1969 lays down regulations for the issue of certificates for the import of goods into the Free Zone of Manaus, and the transfer of goods imported through the Free Zone to other parts of Brazil.

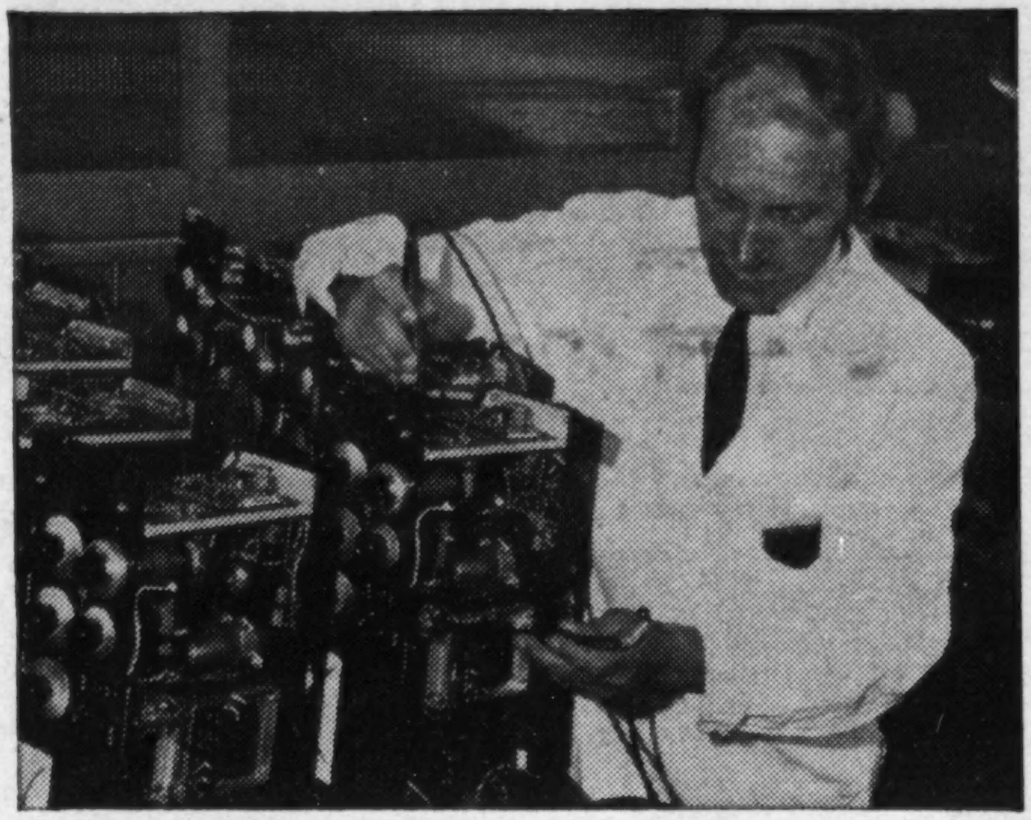
Resolution No. 53 dated October 23, 1969 relates to the exemption or reduction of import duties and manufactured goods tax levied on imported capital goods destined for the installation, extension or re-equipment of Brazilian exporting firms.

Resolution No. 54 of December 3, 1969 simplifies the procedure for temporary entry into Brazil of materials for the presentation, packing and preparation of products for export.

Translations of these Resolutions may be inspected at the Tariff Section of Export Services Division, Board of Trade, Room E39, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 474).



*One of two giant platen presses being built by Fielding & Platt Ltd., the Gloucester hydraulic press manufacturers and a member of the Redman Heenan International Group of Companies, for the Davey Company of Jersey City, United States. When complete each press will have nine main cylinders and six frame members and weigh over 300 tons. The presses are to be used to de-water binders board used in the book binding industry and the order was secured in the face of intense American and international competition. These machines are only two of a wide variety of hydraulic presses currently being manufactured by Fieldings at Gloucester, and the order intake during the past few months include three more aluminium extrusion press plants, two of which are for export, one to Sweden being a second press plant for Svenska Metallverken, and one for France. The last of a batch of eight single mould concrete slab presses have recently been shipped to Rumania.*



*Sangamo Controls Ltd., Bognor Regis, the systems and control subsidiary of Sangamo Weston, Enfield, has recorded its 'best ever' export year, with 86 per cent of its principal product line, rheological testing equipment, going overseas. Total sales, in 15 countries, of the Sangamo rheogoniometers (for precise examination of viscosity and flow properties) now approach £1 million, with some 40 per cent in dollar sales. Other export winning products include liquid density meters, of which 30 per cent of production to date has gone abroad, and the firm's newest line, electronic transducers and transducer meters. A batch of transducer meters are seen here undergoing final assembly.*

## CHILE

### *Permitted Import List and Customs Schedule: amendment*

A SERIES of amendment lists were issued recently alternating rates of import duty in Chile and adding items to the Permitted Import List. A wide range of goods are affected, notable exception being the following:

| | |
|---|---|
| Chapter 22 | Beverages, spirits and vinegar. |
| Chapter 24 | Tobacco. |
| Chapter 31 | Fertilizers. |
| Chapter 33 | Essential oils and resinoids; perfumery, cosmetics and toilet preparations. |
| Chapter 37 | Photographic and cinematographic goods. |
| Chapter 43 | Furskins and artificial fur; manufactures thereof. |
| Chapter 65 | Headgear and parts thereof. |
| Chapter 71 | Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery. |
| Chapters 73-83 | Base metals and articles of base metal. |
| Chapter 84 | Boilers, machinery and mechanical appliances; parts thereof. |
| Chapter 85 | Electrical machinery and equipment; parts thereof. |
| Chapter 88 | Aircraft and parts thereof; parachutes; catapults and similar aircraft launching gear; ground flying trainers. |
| Chapter 89 | Ships, boats and floating structures. |

British exporters requiring relevant information should specify the products in which they are interested and address their inquiries to Tariff Section, Export Data Branch, Board of Trade, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 474 or 476).

*Beat-duty policemen in Kuala Lumpur are now equipped with STC Starphone pocket radiotelephones. Fifty sets have been supplied and a further 30 are on order. The radiotelephones, weigh less than a pound and fit easily into any policeman's trousers or jacket pocket.*

## UNITED STATES

### *Further duty extension on sheet glass items*

THE *Board of Trade Journal* of January 14, 1970, gave notice of the extension of existing escape clause duties by the United States on certain sheet glass items until March 31, 1970.

The President of the United States has now announced a further extension of the increased duties until December 31, 1971. The duties will then be phased out in two annual stages to normal trade concession rates.

The President has decided to take no action in respect of the second investigation into certain types of flat glass (sheet, plate, float and rolled) and tempered glass also notified in the *Board of Trade Journal* of January 14, 1970.

Inquiries about this notice should be addressed to Tariff Section, United States, Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 455, 456, 457). Ref. 3.3.70.

### *Hazardous Substances Act: labelling of toy rocket propellent devices*

THE Commissioner of Food and Drugs has received requests to exempt toy rocket propellent devices from certain labelling requirements of section 2 (P) (1) of the United States Federal Hazardous Substances Act. The Commissioner has concluded that an exemption can be granted subject to the provision of instructions for use and complete cautionary labelling accompanying each individual rocket device. This amendment became effective on February 26, 1970.

Further details can be obtained from Export Services Division (Tariff Section), Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 455, 456, 457) (Ref. FR 26.2.70).

### *Investigation—pianos*

THE *Board of Trade Journal* of January 14, 1970 gave notice of an investigation by the United States Tariff Commission to determine whether imports of pianos and piano parts were being imported in such quantities as to cause or threaten injury to the United States domestic market.

The United States President has now acted upon the Tariff Com-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mission recommendations and has announced the suspension of the Kennedy Round tariff reductions on pianos, excluding grand pianos, for three years. The 1969 rate of 13.5 per cent *ad valorem* will be maintained until February 1973. The postponed tariff reductions will be made on February 24, 1973, January 1, 1974 and January 1, 1975, when the rate will drop to 11.5 per cent, 10 per cent and 8.5 per cent *ad valorem* respectively. The original Kennedy Round staging for grand pianos continues. Piano parts are not affected.

Inquiries about this notice should be addressed to United States Tariff Section, Export Services Division, Board of Trade, Hillgate House, 35 Old Bailey, London, E.C.4 (Tel. 01-248 5757, Ext. 455, 456, 457), quoting reference FR 25.2.70.

*Some of a party of 15 senior Japanese plant managers who visited the works of Varley FMC Ltd., Brentford, recently. Second from right is Mr. J. Thurston, Varley's assistant general manager. This study team consisted of businessmen who are for the most part either corporate officers in charge of production or plant managers representing leading Japanese companies. They were visiting leading European manufacturers to view production methods. At Varley FMC Ltd., the study team inspected the production of pumps and food machinery and then had discussions with senior management personnel.*

## *Investigation—carpets*

THE *Board of Trade Journal* of January 21, 1970 gave notice of the extension of existing United States escape clause duties on Wilton and velvet carpets, with the exception of carpets of oriental design, until December 31, 1972.

Upon the request of the President, the United States Tariff Commission is conducting an investigation to determine the probable economic effect on the domestic industry concerned of the reduction or termination of these increased rates of duty.

A public hearing has been arranged for April 21, 1970, and anyone wishing to appear should notify the Secretary of the Tariff Commission in writing at least three days in advance of the date of the hearing.

Inquiries about this notice should be addressed to the United States Section, Commercial Relations and Exports Department, Board of Trade, 1 Victoria Street, London, S.W.1 (Tel. 01-222 7877, Ext. 2397), quoting reference FR 26.2.70.

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*Consignment of steelwork about to leave the Winnall works of Conder (Southern) Limited being part of the large order recently received for 40 controlled humidity buildings for NATO. The buildings will be erected in the Federal Republic of Germany.*

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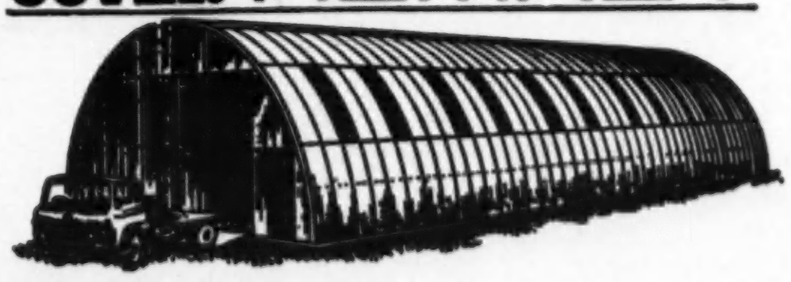

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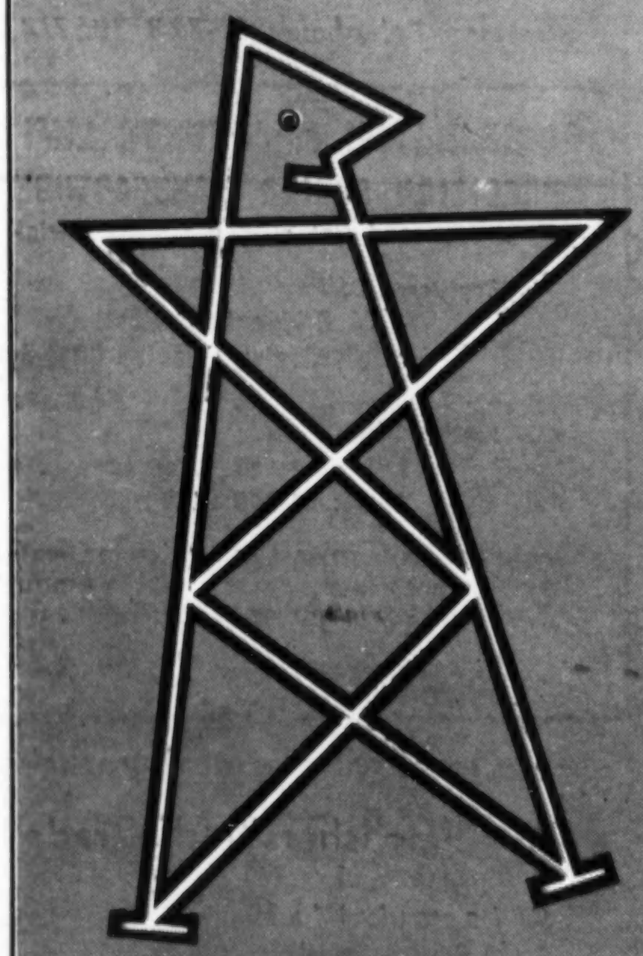

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